A

JOURNEY

IN

CARNIOLA, ITALY, AND FRANCE,

IN

THE YEARS 1817, 1818,

CONTAINING

REMARKS RELATING TO LANGUAGE, GEOGRAPHY, HISTORY, ANTIQUITIES, NATURAL HISTORY, SCIENCE, PAINTING, SCULPTURE, ARCHITECTURE, AGRICULTURE, THE MECHANICAL ARTS AND MANUFACTURES.

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A

JOURNEY

IN

CARNIOLA AND ITALY.

CHAPTER VII.

[illegible] to Milan.—Via Flaminia.—The Apennines.—The Furlo.—Rimini.—Ravenna.—The Dutchy of Modena.—Parma.—Placentia.—Milan.

WE left Rome on the 27th of March, after having been detained for two hours at the gate, on account of some trifling inaccuracy in one of the passports. Our travelling companions were two Bologna lawyers, who entertained us with histories of the devices the Romans practise to marry their daughters to strangers who visit the city.

The crab-apple trees by the road, ten miles from Rome, are now in leaf, and coming into flower.

Via Flaminia.—This modern road from Rome to Rimini follows the course of the ancient Via

Flaminia, and, in some places, passes over the ancient Roman bridges and sewers. The length of the Via Flaminia from Rome to Rimini was 208 ancient Roman miles. The distance by the road at this day is about 200 English miles.

The Via Flaminia was repaired about the year 500, in the reign of Theodoric, King of the Goths and of Italy. Theodoric had a cursus, or public post, with post-horses at each station, established on this and other roads; * a renewal of the post which existed in the time of the emperors, as is mentioned by Pliny the younger, and the historians who have written concerning Constantine. This ancient establishment of post-horses was for the use of the government, and not for private individuals.

We have before spoken of the road as far as Foligno, being part of the road from Perugia to Rome.

Assisi.—Saint Francis.—Monastic Order of Franciscans.—Nine English miles from Spoleto, on the road to Perugia, is situated Assisi, the birth place and residence of Saint Francis, the founder of the mendicant order of Franciscans, one of the most numerous of the monastic orders. Saint Francis was born in 1182, and died in 1226, at the age of forty-four. The order was originally called La Religione de' Frati Minori di San Francesco, and soon became very numerous. In the first general chapter held

* See Cassiodorus, XII. 18.

by Saint Francis, ten years after its establishment, there were above 10,000 monks assembled. In the course of time, the order has been divided into many different orders, which have each made some alteration in the original rules; the Minori Conventuali; the Minori Osservanti, called in France Observantins; the Scalzetti di Spagna, called in France Recollets, in Spain Recogidos, and others. The Franciscans are called in France Cordeliers. * The Franciscans, and other mendicant orders, are reviving in Italy at this day more than the orders which do not depend on immediate mendicity. The mendicant orders are authorized to possess property in land, or other immoveables, by the Council of Trent. Many of the Franciscans travel into distant countries as missionaries. † The history of the Franciscans is written by Wadingus. ‡

Church.—Lapo the Architect.—The church of the convent, in the lower part of which the body of the saint is intombed, was begun two years before the death of Saint Francis, by Lapo, contractedly named for Jacopo, a German, the father of Arnolfo di Lapo, the Florentine architect. § It was built magnificently by means of the offerings of the pilgrims who paid their devotions at the shrine.

* See page 240. † See page 327.
‡ Wading. Annales Minorum.
§ Vasari, Vita d'Arnolfo di Lapo.

Vision of Saint Francis.—Saint Francis is named the Seraphic Doctor, on account of the vision of a seraphim crucified, impressing the marks of the nails, or stigmata, on the hands and feet of the Saint. This subject of Saint Francis receiving the Stigmata was frequently painted by the Italian painters of the Bologna school, and others.

There are the remains of an ancient temple at Assisi with six Corinthian columns, as Lalande mentions. Assisi can be conveniently visited in going from Foligno to Perugia.

Loreto.—From Foligno we continue on the Via Flaminia, or Furlo road, proceeding to Fano. Another road leads from Foligno to Loreto, a distance of sixty English miles. Along this road, in 1795, l'an 6 de la republique, the French army, under Berthier, marched, coming from Ancona by Loreto, and proceeded to occupy Rome. At Ancona is to be seen the arch in honour of Trajan, which Winkelmann mentions as built of very large blocks of marble. *

Strata.—After the above digressions we return to our road the Via Flaminia. Before Nocera, and at that place, are strata like those at Trieste and Florence, consisting of argillaceous shale, and layers, a foot thick, of a coarse-grained dark-coloured stone, similar to the pavement stone of Florence.

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* Winkelmann, Hist. de l'Art. Liv. VI. chap. 7.

Nocera.—At Nocera there is a mineral water employed in medicine for its purgative qualities.

Favorinus.—Guarino di Favera, called Varinus Favorinus, was bishop of Nocera. He was the first, after the revival of learning, who published a copious Greek dictionary, and was appointed by Lorenzo de' Medici preceptor to his son John, afterwards Leo X. Favorinus died in 1527.

The road from Rome thus far is kept in good repair; in some places it is cut out of the much-inclined face of a limestone rock. The principal high roads in Italy are kept in good order.

Castles of the Middle Ages.—After Nocera is Gualdo, with a castle built in the middle ages. At Sigillo, the next stage, and likewise at Cantiano, is another of these castles, called in Italy Rocce. These castles, according to Muratori, were built after the tenth century; on this road they served for guarding the pass between Romagna and Rome; they are buildings of no great size, and have nothing grand in their aspect. The castles in the Apennines, of the creation of Mrs Radcliffe, in her romances, are a great deal more magnificent.

Poverty of the Towns.—Most of the small towns amongst the mountains through which the road passes present the appearance of great poverty.

Strata.—At Sigillo there is limestone, or indu-

* Muratori, Antiq. Ital. Dissert. XXIV.

rated chalk, containing brown flints; the flint is disposed in strata and in nodules.

Bridge of la Schieggia.—In the territory of la Schieggia, between Sigillo and Cantiano, is the bridge of la Schieggia, built over a deep ravine. The word Schieggia, also written Scheggia, signifies a steep rock. The bridge consists of an arch, supported at each extremity by rocks, and above the arch is a large cylindrical perforation, or arch, composed of an entire circle, sixty-five feet in diameter. It is called Ponte a Bòtte, that is to say, tun or tunnel-shaped bridge. The depth from the foot of the parapet to the bottom of the ravine is 230 English feet. The wings of the bridge, over which the road passes, are formed internally of two or three tier of arches instead of being filled with earth, which, by its tendency to fall down, presses out the walls of fabrics in which it is employed: these arches counteract the pressure of the circular aperture, and are concealed by the side walls. The bridge was designed by the engineer Fabri of Fossombrone, and formed part of the restoration of the Via Flaminia, undertaken by order of Pius VI.

In constructing this bridge, which was finished in 1805, the foundations of the ancient town of Luceoli were discovered.

Eugubine Tables.—Not far from this, and near the ruins of a temple of the Apennine Jupiter, in the year 1444, were found the Eugubine tables, so call-



BRIDGE AT LA SCHIECCA

[illegible]

[illegible]

Edinburgh Published by A Constable & Co [illegible]

ed from the neighbouring town of Gubbio or Ugubbio, the community of that town having acquired the property of these tables. They are a specimen of the letters and language of the Umbri, a Celtic nation that settled in Italy at a remote period. They are written partly in old Latin and partly in Etruscan letters, and are considered by some to be of the year 400 before Christ. They are explained by Lanzi. * The Etruscan letters have a resemblance to the Greek and Latin letters in a degree sufficient to shew that they are all derived from the same source. †

Near la Schieggia the water divides, flowing on one side into the Tiber, and on the other into the Adriatic by the Metauro.

Strata.—The strata at the bridge are shistose transition limestone; and afterwards farther on are strata of clayey shale, alternating with strata of a kind of clay ironstone.

Indurated Chalk.—Between Cantiano and Cagli, at Monte Petrano, the road goes through a narrow pass between mountains of limestone, or rather hard chalk, containing alternate flat layers of brown flint.

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* See Lanzi, Saggio della Lingua Etrusca, 1789; also Adelung's Mithridates.

† See the alphabets published in the Origin and Progress of Writing, by Thomas Astle, Keeper of the Records in the Tower of London, 1803.

Ancient Bridge.—In this pass the road crosses the Cantiano, a river which joins the Metauro to the east of Fossombrone, by the *Ponte Grosso*, a massive ancient Roman bridge, consisting of two semicircular arches and a very thick pier between the arches. The Roman bridges do not present the bold wide spanned arches of the moderns.

Roman Conduits.—The road follows the course of the Cantiano, and before arriving at Cagli there are three large ancient Roman conduits for conveying the water under the road into the valley. These conduits are composed of great squared blocks of calcareous breccia, otherwise called conglomerate. Some of the blocks are three feet square by six feet in length. The conduits are covered with stones laid flat, and are not arched.

The bridge and the conduits are remains of the works which formed part of the ancient Via Flaminia.

Cagli.—Snow.—Cagli is a neat small town on the side of Monte Petrano, and just within the opening of the pass of *le Scalette*, and surrounded by high mountains which have snow on them now, on the 31st of March.

Tanning.—Towns in the Apennines.—Cagli has some appearance of activity. There are tanneries and smiths employed in making fowling-pieces. The tanning of leather at Cagli is performed with oak bark, I suppose; but at Naples the leaves of the

broad-leaved myrtle are used for tanning, and oak bark is not employed. The Neapolitan process is described by Lalande.* The town of Cagli is much better in its appearance than the small mountain towns of Nocera, Sigillo, and others, which look miserable, like the habitations of assassins, as the Italians say of them, with no appearance of industry, and scarcely a few shops to be seen. Some of these small towns consist of houses clustered together on an eminence, and from the foot of the hill the walls only are seen and not the roofs. Most of their windows are of paper, few are of glass.

Hawthorn Hedges.—Since Sigillo there are seen here and there hawthorn hedges inclosing the fields.

Bridge of Manlius.—Coming out of Cagli the road crosses the river which flows into the Cantiano by the ancient Roman bridge called Ponte Manlio. The river passes only under the principal arch, which is thirty-nine feet in span. The circle of the arch is composed of nineteen large stones. The bridge has one or more smaller arches concealed by the adjacent buildings.

Perforated Rock.—Aqualagna is the next post, and after that we come to the narrow pass called Il Furlo, an appellation which is supposed to be deriv-

* Voyage en Italie fait dans les années 1765 et 1766, par M. de Lalande, de l'Academie Royal des Sciences de Paris.

ed from Forulus, a perforation. The Cantiano runs for some distance between two high rocks, which are abrupt, and nearly perpendicular from their summit down to the water. On the left side of the river the road has been formed with great labour in the side of the rock, and passes through a part of the rock by a tunnel. The length of the tunnel I found to be forty-two walking paces, or nearly 126 feet.* This stupendous Roman work was called Saxa Intercisa and Petra Pertusa. It was executed by Vespasian, as the ancient inscription cut in the rock above the north-east entrance testifies; the inscription is given in Gruter's Collection.

IMP. CAESAR AUGUSTUS.
VESPASIANUS. PONT. MAX.
TRIB. POTEST. VII. IMP. XXVIII. COS. VIII.
CENSOR. FACIUND. CURAVIT. †

Vespasian was noted for his attention to the finances, and the wealth he collected was employed by him in the construction of magnificent edifices for the public use. The Coliseum, or Flavian Amphitheatre at Rome, the greatest Roman stone build-

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* Bergier, from report, makes it 200 geometrical paces, that is, 1000 feet; also Gruter. See Bergier, Sur les Grands Chemins de l'Empire Romain, Liv. I. sect. xvii.; and Gruteri, Corpus Inscriptionum.

† See page CXLIX of Jani Gruteri Corpus Inscriptionum. Amstelaedami, 1707.

ing that now exists, was his work. He also made and improved the roads in Italy and the provinces.

This magnificent work, the Furlo, situated on the descent of the Flaminian way, is mentioned amongst the works of Vespasian by Aurelius Victor. *

Claudian speaks of it in his Account of the Journey of Honorius from Ravenna to Rome. †

This pass is called by Procopius Πέτρα. In the second book of his History of the Gothic War, he mentions that it was taken from the Goths by the troops of Justinian.

Other Ancient Tunnels.—There are two ancient subterraneous roads in other parts of Italy. One of these is the road between Bajæ and Cumæ, about eighty feet in length, made by Agrippa, who employed his riches in the construction of great public works. The other is the grotto of Pausilippo, which perforates the hill of Pausilippo, and gives passage to the road from Naples to Puzzuoli, about 1000 paces long; it is unknown by whom this grotto was constructed. ‡

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* "Per omnes terras qua jus Romanum est, renovatæ urbes cultu egregio, viæ operibus maximis munitæ sunt. Tunc cavati montes per Flaminiam sunt prono transgressu, quæ vulgariter pertusa petra vocitatur."—Aurelius Victor in Vita Vespasiani.

† "Qua mons arte patens vivo se perforat arcu
Admisitque viam sectæ per viscera montis."
Claudian. de Sext. Cons. Honor.

‡ See Bergier, de Imperii Rom. viis, Lib. II. sect. xvi.: an

A Roman work where a rock has been cut through for the passage of a road, but open and uncovered, is near Sisteron, on the Durance in Provence, and is called Petra Scripta, from the inscription on the rock published by Gruter. *

Perforations for the Simplon Road.—Three or four perforations or galleries are made for the passage of the road, conducted across the Alps by the Simplon, the work of Bonaparte.

Inscription of Trajan.—Some way after the perforated rock is a bridge, with an inscription of Trajan, but the arches are of small stones, and do not appear to be ancient.

Bridge of Fossombrone.--- At Fossombrone, anciently Forum Sempronii, is a handsome modern bridge, of one semicircular arch of about 130 feet in span, over the Metauro.

Urbino.---From Fossombrone a road branches off to Urbino, which is ten miles distant to the west.

Urbino was the chief town of an independent principality, which now forms part of the pope's dominions. The extent of the dutchy of Urbino is equal to a square, whose side is about thirty English miles. The road which we are travelling passes

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edition of this work of Berger Syndic of Rheims, written about the year 1600, is published in Grævii Thes. Antiq Rom. Tom. X.

* Gruteri Corp. Inscriptionum, pag. CLI. 6.

through the dutchy all the way from La Schieggia to a few miles after Pesaro.

In the middle of the sixteenth century, Guidobaldo II., Duke of Urbino, kept a splendid court, and was a great encourager of men of learning. The dukes held their court at Urbino, and also sometimes at Pesaro. Francesco della Rovere, Duke of Urbino, died in 1631, leaving the dutchy of Urbino to the Holy See, as his feudal superior. *

When Urbino was an independent capital, and the residence of a prince who encouraged the arts, these circumstances induced men of talent to live there, and the town and territory gave birth to many eminent men, amongst whom are the following: *Raphael; Bramante*, the architect; *Baroccio*, the painter. *Commandino*, the mathematician, who was born in 1509, and died at the age of sixty-six; he was contemporary with the mathematicians, Ramus, Cardan, Maurolycus, and the Jesuit of Bamberg, Clavius. *Polydoro Vergilio*, apostolic collector in England in the time of Leo X. and Henry VII. and VIII.; author of a History of England, written by order of Henry VII., and of a book De Inventoribus Rerum. *Bernardino Baldi*, an esteemed poet and man of learning, was born at Urbino in 1553, and died at the age of sixty-four. † He wrote pastoral poems and mechanical dissertations on Vitruvius.

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* See page 291.

† See Tiraboschi, Stor. dell. lett. ital.

After Fossombrone the country becomes less hilly, and more cultivated as we proceed to Fano.

Leaves Withered by Frost.---There are good hedges of hawthorn, which are in leaf now, on the 1st of April, but the leaves are a little withered by the recent cold weather.

Trees.---On the road from Rome to Fossombrone, no chesnut trees are seen, although they are frequent in many other parts of the Apennines, where chesnuts are the chief food of the mountaineers. There are walnut trees, apple trees, many olive trees at Terni, and some olive trees a little higher up by the road. Elms are frequent in the cultivated parts of this route; and there are sometimes vines trained upon them. Oak is met with; evergreen oak forms extensive copses at Terni and other places; Arbutus unedo, or strawberry tree, is seen in the woods at Terni.

Fano.---At Fano, anciently Fanum Fortunæ, the Metauro discharges itself into the Adriatic. A branch derived from the river is dammed up, and the water runs over a long inclined surface.

There are some remains, as I was informed, of an ancient Roman arch.

Arabic Printing.—The first printing-press, with a fount of Arabic types, that was ever employed in Europe, was established at Fano in 1514, at the expence of Julius II. The Alcoran in Arabic, edited by Paganino di Brescia, issued from this press.

The printing of books in various oriental languages was afterwards carried on with much activity at Rome in the time of Gregory XIII., under the auspices of Cardinal Ferdinand de' Medici, who became Grand Duke of Tuscany, and subsequently by the Congregation de Propaganda Fide. The types of Cardinal Ferdinand were at last removed to Florence, and deposited in the Palazzo Vecchio. *

From Fano to Pesaro the road runs parallel to the shore.

A quantity of small broken twigs of trees are thrown on the beach by the sea, and collected for fuel.

Pesaro.—Over the gate of Pesaro, within an iron grating, is exposed the head of a robber executed in 1816.

Earthenware.—At Pesaro, Pisaurum of the ancients, there are manufactories of different kinds of pottery; the heavy earthenware, called Majolica, like the Fayence of the French; stoneware made in the English manner of pipe-clay, imported from Trieste, I suppose Devonshire clay; and large oil jars glazed in the inside, of the same kind as the Spanish oil jars which are sometimes imported into Britain. †

* Tiraboschi, Stor. dell. lett. Ital.

† See page 226.

Glass.—There are glass-houses for making the thin Italian wine decanters and flasks.

Cream of Tartar.---There is also a manufactory of cream of tartar made from the tartar of wine.

Harbour.—The harbour is a straight canal formed by the mouth of the river, and had a dozen coasting barks of about twenty tons lying in it when we passed.

A wall with bastions surrounds the town, and a modern martello tower is situated on the beach at the entrance of the harbour.

Villa Moscha. Two miles from Pesaro, to the right of the Rimini road, is the Villa Moscha, a country house of no great size, at this time, 1818, inhabited by the Princess of Wales.

Rimini.—Roman Arch.—The gate by which we enter Rimini is an ancient Roman arch, with two fluted Corinthian columns and a pediment. It was erected to commemorate the restoration of the Via Flaminia, which Augustus accomplished in his seventh consulship, as historians mention; and the mutilated inscription, which exists above the pediment, mentions the seventh consulship.† The four medal-

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* Di . Lib. LIII.

† The inscription as given by Malatesta, [illegible],

c . . . pl . ... [illegible]nato . octavo aug . . .

[illegible] . . . pop . . .

§ [illegible] Joseph [illegible] Garuffi, Bibliothecae Arim[illegible]

[illegible] monumenta et inscriptiones Via

lions on the edifice are the heads of Jupiter, Minerva, Neptune, and Venus; deities who favoured and protected the city of Rimini. A drawing of this arch is published by Temanza * and by Fabretti, who considers it to resemble the monument of the Aqua Marcia at the Porta San Lorenzo, and the arch of Drusus near the Porta San Sebastiano of Rome. † Rimini contains some buildings of good architecture.

Invention of Bomb Shells.---In the church of Saint Francis, built in the fifteenth century, is a monument in memory of Valturio of Rimini, who died in 1468. He was author of a work De Re Militari, in which he relates that bomb-shells were invented in his time at Rimini. These bombs were made of bronze. ‡

In the piazza is a statue of Paul V. Borghese.

Meridian Measured in the Pope's Territory.—Rimini is nearly upon the meridian of Rome, being only 4 minutes 36 seconds of a degree east of that meridian. It is 2 degrees, 9 minutes, 49 seconds of latitude north of Rome. The arc of the meridian

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Flaminia, et Arimini scrutatur; in Graevii, et Burmanni Thesaurus Antiquitatum, et Historiarum Italiæ, Tom. VII. par. 2.

* Temanza, Antichita di Rimini.

† Fabretti, de Aquæductibus, Diss. Prima in Graevii Thes. Ant. Rom. Tom. IV.

‡ See Tiraboschi, St. dell. Lett. It.

between the two places was measured across the Apennines by Boscovich, * by means of a series of triangles, with a view of ascertaining the length of a degree of the earth's meridian circumference in that country.

Maraschino.—At Rimini, and other places on the Adriatic, is to be met with the liqueur Maraschino, made at Zara. The name is derived from Marasca, a kind of wild cherry used in the preparation; Marasca is the same as Amarasca and Amarina, the cherry being so called from its bitter taste.

Roman Bridge.—We leave Rimini by an ancient Roman bridge of five arches, built over the Maricchia. This is one of the most considerable ancient bridges in Italy, and was built by Augustus and Tiberius, as the inscriptions given by Gruter attest. The span of each of the three principal arches, according to Palladio's measurement, is twenty-seven English feet. † The thickness of the piers is nearly one half of the span of the arches.

The ancient Roman bridges in Italy have semicircular arches, which are inferior in size to the arches of several stone bridges that have been constructed in Europe in modern times, such as Black-

* See page 504.

† 25 Vicenza feet. See the drawing published in Il libro terzo dell' Architettura di Andrea Palladio.

friars Bridge and the Wellington Bridge in London; the bridge of Neuilly, the bridge of Louis XVI., and the bridge of the Invalids, formerly called the bridge of Jena, at Paris. The Romans were unacquainted with bridges of cast iron, some of which have been constructed within the last thirty years with arches of a greater span than the widest stone arches; and even surpassing the width of the wooden bridges at Schafhausen, and at Wettingen on the Limma, near Zurich. The largest Roman bridges that are known are those of Evora and of Salamanca in Spain, built or repaired in the time of Trajan. * The bridge built by Trajan over the Danube, the greatest Roman work of this kind, was demolished by his successor Adrian. The Pont du Gard, over the gardon between Nismes and Avignon, now used as a bridge, was an ancient Roman aqueduct; it is magnificently constructed of squared stones without mortar; and, in respect to the materials, surpasses the arcades of the aqueducts at Rome, which are only of brick.

The Via Flaminia extends from Rome to the bridge of Rimini; the ancient way, which begins on the other side of the bridge, is the Via Emilia, made in the year 566 of Rome, from Rimini to Placentia.

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* Bergierus de Imperii Romani viis. in Graev. Thes. Ant. Rom. Tom. X.

The harbour of Rimini at the mouth of the river is only capable of containing coasting barks. It is said that, since the time of the ancient Romans, the deposition of alluvial matter has extended the land in this place.

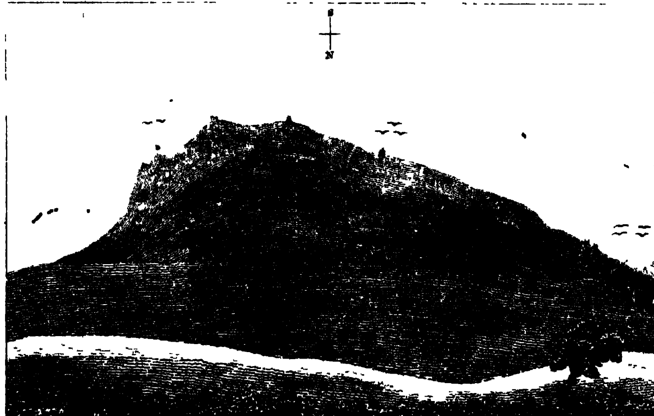
Salt.—At Cervia, twenty miles from Rimini, salt is made from the sea-water, evaporated by the heat of the sun in the summer months. The sale of salt in the pope's dominions is an exclusive privilege in the hands of government.

At Rimini the road to Bologna quits the coast.

San Marino.—Between Rimini and Cesena, to the left of the road, at the distance of ten miles, is seen a hill with a small town upon its ridge. This is the republic of San Marino. The height of the hill, according to Lalande, is 2200 English feet.

The inhabitants are mostly tenants and a few proprietors. Most of the land belongs to individuals, who are strangers to the republic, and live in Cesena and other neighbouring towns. The town on the ridge of the hill is that in which the principal inhabitants of San Marino reside. There is another village on a lower hill, inhabited by the poorer citizens. The extent of the territory of the republic is equal to a square whose side is about four and a half English miles. The whole number of inhabitants of the republic is about 5000. They are governed by two magistrates called Capitani, who are changed every six months; one rules over

The Republic of SAN MARINO, seen from the Road
between Rimini and Cesena. page 20 vol II
the Village, — the principal Town, — the Apennines covered with snow in April.



the town, the other over the country. The capitani are chosen by the council of sixty, and this council transacts the ordinary affairs of the government.

There is a great council called Arengo, to which every family sends a representative. This is assembled on extraordinary occasions.

The third officer in the state is the commissary, who is assessor and judge along with the capitani in determining civil and criminal law-suits. The commissary is not a native of the republic. He is a Doctor of Laws of Bologna, or one of the neighbouring universities. He is elected for six months, but is usually continued. *

It appears that the magistrates of Cesena, and other neighbouring places in the pope's territory, are administered by consuls or capitani elected by the community like those of San Marino. † The inhabitants of this small republic are proud of their independence, and have always resisted the efforts made to annex their territory to the dominions of the pope, by which they are surrounded. The road to San Marino is not passable for carriages.

San Marino takes its name from Saint Marino, a Dalmatian mason, who, after having wrought at

* See Remarks on several parts of Italy in the years 1701, 1702, 1703, by the late Right Honourable Joseph Addison.

† See Vincentii Cæsenatis de Rubicone, cap. 14. in Græv. Thes. Ant. Ital.

the buildings of Rimini, retired to the mountain and led the life of a hermit, and by his sanctity attracted many followers. The place was ever after called Fanum Sancti Marini.* He died in 257. It is said the republic was established in the year 600.

About the year 1460, Pius II. gave the republic some additional territory, in consideration of the assistance the community had given him in his contest with Malatesta the lord of Rimini. In 1739, the Cardinal Legate at Ravenna, taking advantage of some dissentions in the republic, attempted to attach the territory to that of the Holy See; but the inhabitants of San Marino were unwilling, and Clement XII. Corsini disapproved of the conduct of the legate, and ordered that the government of San Marino should be allowed to continue as formerly.

San Marino is surrounded by the territory of the Holy See, and is protected by the pope.

In answer to some observations on San Marino, published lately (1818) in a Venetian newspaper, in which it was said that plays were prohibited, one of the principal inhabitants stated, that there was no formal prohibition, but that theatrical amusements were unnecessary in the poor and simple way of life that prevailed in their small community.

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* See Petr. de Natalibus Vita Sancti Marini, and Dictionnaire Historique, par Louis Moreri.

Savignano.—Roman Bridge.—At Savignano, between Rimini and Cesena, the road crosses an ancient Roman bridge of three arches. The bridge is repaired with Istrian marble, like that used at Venice. Each arch is twenty-one feet in span. The river, which now at this season contains little water, is called the Fiumesino, and is supposed by Cluverius, D'Anville, and others, to be the Rubicon of the ancients; but there was formerly a great dispute between the antiquaries of Cesena and those of Rimini on this subject. Each claimed the honour of having the Rubicon on their territory. Cesena maintained, that a stream now called the Pisatello was the Rubicon; this stream is in the territory of Cesena, and crosses the highroad two miles east of that town, and near the river is to be seen an inscription, by which it is declared unlawful for a consul or legionary soldier to pass the Rubicon. This inscription is considered to be a fabricated production of the antiquaries of Cesena, and is published by Gruter amongst the false and spurious. Rimini maintained, that the Rubicon was the Fiumesino, which runs by Savignano. Some said it was the Luso, a small stream which crosses the road two miles east of Savignano. Several dissertations on this subject are published by Grævius.* All the three streams are small. The Fiumesino is only about twenty miles in length from its source

* Græv. Thes. Ant. Ital. Tom. VII. par. 2.

to its mouth, where it falls into the Adriatic. It is joined by the Pisatello before falling into the sea. The Rubicon divided Italy from Cisalpine Gaul;* Rimini was the city of Italy nearest the frontier on the Adriatic, and Ravenna was the city of Cisalpine Gaul nearest the frontier of Italy. On the Tuscan Sea, Lucca was in Cisalpine Gaul, Pisa in Italy.

The Rubicon was the limit of Julius Cæsar's province, and the act of marching his troops beyond that limit was in effect a declaration of war against the senate.† He marched from Ravenna, crossed the Rubicon, and immediately took possession of Rimini.

Plain of the Po.—Rimini and Cesena are near the south-eastern angle of the great and very fertile plain, which extends westward on both sides of the Po, and is bordered by the Alps to the north, and the Apennines to the south. This plain was the Gallia Cisalpina of the Romans, and, after it had been conquered by the Lombards in 570, it acquired the name of Lombardy.

This plain of the Po may be considered as forming an equilateral triangle, the base of which, from Cervia to Venice, is ninety English miles, and each

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* Rubico quondam finis Italiæ. Plin. Hist Nat. III. 20.

† See Sueton. Jul. Cæs. Plutarch. Cæs. Appian. lib. ii. Lucan. Pharsal.

of the sides, from Venice to Vercelli, and from Cervia to Vercelli, 180 English miles. This triangle, but more extended, is described by Polybius.*

Country at Cesena.—At Cesena the country is fine and well cultivated, and inclosed with hawthorn hedges. The plain is skirted with hills near at hand to the west and south.

Ponds for Steeping Flax.—Much hemp and flax are cultivated in the neighbourhood, and at Cesena there are several ponds for steeping the hemp. This kind of pond is called a Masnadaro; at Modena it is called Masero, and Muratori derives the word from Maceratorium.† The masnadaro is made with perpendicular sides of brick, and, for the purpose of attaching the hemp, there are rows of strong wooden stakes in the pond, each row six feet from the

* "The extremity of Italy next the Alps consists of a plain which is the largest and most fertile in Europe. The form of this plain is triangular; the angle at the summit of the triangle is formed by the junction of the Alps and Apennines, near the Sardinian Sea and Marseilles; the northern side of the triangle is formed by the Alps, and is 2200 stadia in length; the south side by the Apennines, and is 3060 stadia; the base of the triangle is the shore of the Adriatic, extending from Sena (this is supposed to be Sinigaglia) to the bottom of the Adriatic Gulf, 2500 stadia."—Polyb. Book II. According to D'Anville, 88 stadia are equal to 10 English miles.

† Muratori, Antiquitates Italicae, Dissertatio 33, de Etymologia Italicorum Vocum.

next. The top of these stakes is above the surface of the water. The pond can be filled with water or laid dry at pleasure. Similar ponds for steeping hemp and flax are seen at Bologna.

Statue of Pius VI.—There is a statue of Pius VI. Braschi in the town-house of Cesena. He was a native of this town, and died in 1800. His successor, the reigning Pope Pius VII. Chiaramonti, is likewise a native of Cesena.

Bridge.—At Cesena is a handsome bridge of brick over the Savio. It consists of three semicircular arches, and was built by Pius VI.

Some writers, desirous of ascribing a great antiquity to their town, pretend that Cesena was the residence of the Galli Senones, and of Brennus, who took Rome in 387 before Christ. But Naudè has shewn, that the ancient Senae, founded by the Galli Senones, is Sinigaglia and not Cesena. †

Sulfur Mines.—At Sogliano, ten miles south from Cesena towards the hills, is a considerable manufactory of sulfur. The sulfur is got in its native and uncombined state amongst clay. Regularly formed translucid crystals of sulfur of considerable size, being an inch in length, are sometimes found.

* Claramontii Apologia pro Caesenae Antiquitate, in Græv. et Burmann. Thesaur. Ant. et Hist. Ital. Tom. VII. par. 2. Lugd. Bat. 1722.

† Naudaei, Exercitatio, in Græv. Thes. Ant. Ital. Tom. VII. par. 2.

The road leading to the mine is very bad at this season. This sulfur is sent by coasting barks to Trieste and Ancona, from these places considerable cargoes are shipped to England.

Horizontal Water-wheel.—Near Cesena, by the side of the road, are some corn-mills moved by horizontal water-wheels. The vanes of the wheel are not flat, but concave, in the form of scoops, and receive the water descending from above, and issuing through a wooden trunk. The diameter of the water-wheel is about three feet. The mill-stone is fixed on the axis of the water-wheel, so that there are no toothed wheels required to change the direction of the motion.

Forlimpopoli.—Between Cesena and Forli is the small town of Forlimpopoli, pronounced by the natives Frampool, anciently called Forum Pompilii, from which the modern name is derived.

Forli.—Forli is the ancient Forum Livii. At Monte Maggiore, near Forli, are springs of water containing muriate of soda, common salt.

Forli to Ravenna.—I left the Bologna road, and struck off to the right hand, in order to visit Ravenna, which is sixteen English miles from Forli.

River Ronco.—For the greatest part of the way the road is upon the top of the left hand embankment of the river Ronco; the water of which, now, in its full state, is nearly on a level with the adjacent fields. The dike or embankment appears to

be formed of the sand that the river deposits. The Ronco rises in the Apennines, near the source of the Arno, but its waters take an opposite direction, and it falls into the Adriatic five miles below Ravenna.

Fertile Country.—The country adjacent to the road between Forli and Ravenna is fertile and well cultivated; the fields are inclosed with hawthorn hedges, sown with wheat, and planted with rows of white mulberry; and with elms, on which vines are trained. Now, on the 2d April, the country people are sowing hemp, and a cross beam is drawn over the ground by oxen, after the hemp seed is sown.

There are many good looking houses of proprietors and farmers by the side of the road.

On approaching Ravenna, a modern bridge of five or six arches is seen to the right. By this bridge the road to Cervia and Rimini passes.

Pineta.—In the same direction also is seen the Pineta, a forest of pines, Pinus pinea, which occupies the sand hills on the coast between Ravenna and Rimini, to the extent of twelve miles.

Cathedral.—In the cathedral of Ravenna is an ancient pyrgus, or pulpit of marble, with sculptures of animals in bas relief; an ancient chair covered with bas reliefs in ivory; the paschal cycle engraved on marble. Several ancient sarcophagi, found in re-

pairing the cathedral, are placed on the outside of the church.

Paschal Cycle.—The paschal cycle is engraved in a circular form, on a slab of marble three feet in diameter. The circle is divided into nineteen segments. It is a calendar in Latin, shewing the pascha resurrectionis, or Easter Sunday, and some other notes for the period from 532 to 636, and is supposed to have been made after the paschal cycle was invented by Dionysius the Little, and copied from his cycle. A drawing of the cycle of Ravenna is published by Cardinal Noris. *

The number 6 is denoted by a figure something like a capital Roman G, and bearing some resemblance to the 6 now in use; but the notation and the rest of the figures are Roman, and the Arabic or Indian figures, and the very ingenious and useful system of decimal notation, were not introduced into Italy till Leonardo Fibonacci, who had been a clerk in the customhouse at Buggia in Barbary, learnt the use of the Indian notation there, and on his return to his native country Pisa, wrote a treatise in 1202, on Arithmetic or the Abacus, which is in manuscript in the Magliabechi library. †

* Dissertatio de Paschali Latinorum Cyclo annorum 84; et de Cyclo Paschali Ravennate Auctore Henrico Noris Veronensi, S. R. E. Cardinali, 1696.

† See Tiraboschi, St. dell. Let. Ital.; and Targioni Tozetti. Viag.

The paschal cycle engraved on the chair of the marble statue of Saint Hypolitus, bishop and martyr, in the Vatican,* is written in Greek, and is published by Scaliger, with notes, and by Gruter. † It begins in the first year of the reign of Alexander Severus, which was the year 222 of the Christian era.

The cycle of the sun, combined with the cycle of the moon, brings back the days of new moon to the same days of the week and the same days of the month: 19 multiplied by 28 give 532; this was the cycle employed by Dionysius the Little. ‡ It is called the Great Paschal Cycle, but since the reform of the calendar by Gregory XIII., it is no longer used.

Dionysius the Little.—The inventor of this cycle, Dionysius the Little, Dionigi il piccolo, so called from his small stature, was a monk, and lived at Rome. He was a native of Scithia, and died about 540. He introduced the manner of denoting the year, which is now adopted in Christendom, by the era of the birth of Christ. || He fixed the beginning of the year one, on the first of January which immediately followed the birth of Christ. Some modern

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* See p. 518 and p. 313.

† Gruter. Corpus Inscript. pag. CXL.

‡ Janus, Hist. Cycli Dionysiani.

|| Petavius Doctrina Temporum, L. xii. c. 2.

chronologists think, that the commencement of the era fixed by him as it is now employed, is four years sooner than the time when the birth of Christ really happened. Besides his chronological works he made a collection of the Decretal Letters of the See of Rome to Anastasius II. *

Baptisterium.—Near the cathedral is the ancient Baptisterium, of a small size, and internally octagonal. The mosaic representing the Baptism of Christ, with figures of the Apostles, is of the year 451, and is drawn and described by Ciampini. †

Church of San Vitale.—The church of San Vitale, or Saint Vitalis, is said to be one of the most ancient fabrics built expressly for a church in Europe. According to Frisi, ‡ it was built in the reign of Amalasunta, probably by Greek architects. According to Rubeus, in 547, in the reign of Justinian, whose portrait in mosaic is seen in the church. ‖ Spreti says, it was built in imitation of Santa Sophia at Constantinople. § In the most flourishing times of Greek and Roman architecture the columns supported a straight architrave. Then came the mode

* Tiraboschi, Stor. dell. Lett. Ital.

† Vetera Monumenta Joan. Ciampini Romani, cap. 25.

‡ Frisi, Saggio Sull' Architettura Gotica.

‖ Rubei Hist. Ravenn. Lib. III. in Græv. Thes. Ant. Ital. Tom. VII.

§ Spreti Ravenn. in Græv. Thes. Ant. Ital. Tom. VII.

of connecting the insulated columns by arches placed upon them, and an early example of this arched style is seen in Diocletian's palace at Spalatro, in which the ancient Roman proportions of the columns are preserved. But large columns of one stone, like those at Rome, were not easily procured. In process of time the ancient proportions of the columns were neglected, and the round-arched style of architecture was formed, as it is seen in Santa Sophia at Constantinople, Saint Vitalis, Saint Mark's church at Venice, and others in Italy, and in various parts of Europe. From the round-arched style arose the pointed arched. The grouped columns of the middle age may have originated from the fluting of the ancient Roman columns; some varieties of ancient fluted columns described and drawn by Piranesi resemble the grouped columns.

In Italy both the round-arched and the pointed-arched styles are called Gothic, though neither of them appear to have been introduced by the Goths. Many treatises have been published concerning particular churches in Italy, with a view to determine whether they were built by the Goths or the Greeks; * but it appears that the Goths had no artists of their own, and employed those they found in Italy.

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* See pages 276, 277; and Tiraboschi, St. d. l. It. Tom. III. 78.

The inside of the church of Saint Vitalis is octagonal,* each side of the octagon being occupied by a tribuna, or large semicircular recess. These recesses are adorned with two tiers of columns supporting round arches, like the arches in the old round-arched churches in England. The columns are of Marmo-Greco, a bluish white marble, with a large-grained crystalline fracture, frequent amongst the ancient marbles of Rome.

Monograms.—The capitals of the columns are in shape of a portion of an inverted pyramid; on one of the faces of which is the monogram of Titus Cornelius Nepos, supposed to be the name of an individual at whose expence part of the fabric was erected. ' This monogram is like those in use in the middle ages, consisting of the Roman capital letters of the name all joined, and placed one over the other. Theodoric, for making his signature, used a plate of metal, in which the letters of his name were cut through, and this being laid on the paper, an inked brush was drawn over it, and left the impression of the letter-formed perforations on the paper, in the same way as playing cards are printed at this day. The monograms of the emperors, successors of Charlemagne, in the ninth, tenth, and eleventh centuries, many of which are published by

* Montfaucon, Diarium Italicum.

Muratori,* were probably printed in the same way.

I was informed that the spherical vaults that form the ceiling of this church are composed in a singular manner of hollow bricks.

Mosaics.---This church is adorned with ancient mosaics, in which is represented Justinian with the bishops and deacons; and on the other side the Empress Theodora receiving the holy water, and accompanied by female attendants. These mosaics are works of the reign of Justinian; they are described by Ciampini; † a drawing of them is published by Rubeus; ‡ and a copy of the figures of Justinian and of Theodora is published in the Paris edition of Procopius.

Tomb of the Exarch Isaac.—By the side of a passage leading into the church of Saint Vitalis is the marble urn of the Exarch Isaac, which is interesting on account of its Greek inscription. § Isaac

* Muratori, Antiq. Italicae, Tom. I.

† Ciampini, vetera monumenta in quibus præcipue musiva opera sacrarum prophanarumque ædium structura illustrantur, 1690. Ciampini held a place in the courts of justice at Rome, and died in 1698. Another work of his is on the churches built by Constantine.

‡ Rubei, Hist. Ravenn. in Græv. Thes. Antiq. Ital. Tom. VII.

§ The following is the epitaph as given in Montfaucon's Diarium Italicum, and in Desiderii Spreti de Urb. Ravenna,

was Exarch or Viceroy of Italy under the Emperor Heraclius, and died in 641.

Tomb of Placidia.—In a chapel not far from the church of Saint Vitalis are three large rectangular urns of white marble; the urn at the upper

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published in Græv et Burmanni, Thes. Antiq. et Histor. Italiæ, Tom VII Par. 1.

Ενταυθα κειται ο στρατηγησας καλως,
Ρωμην τε φυλαξας αβλαβη και την δυσιν
Τρις εξ ενιαυτοις τοις γαληνοις δ εσποταις
Ισαακιος των βασιλεων ο συμμαχος,
Ὁ της απασης Αρμενιας κοσμος μεγας
Αρμενιος γαρ ην ουτος εκ λαμπρου γενους.
Τουτου θανοντος ευκλεως η συμβιος
Σωσαννα σωφρων τρυγονος τροπω σεμνης
Πυκνως στεναζει ανδρος εστερημενη,
Ανδρος λαχοντος εκ καματων ευδοξιαν
Εν ταις ανατολαις ηλιου και τη δυσει,
Στρατου γαρ ηρξαι της δυσεως και της εω.

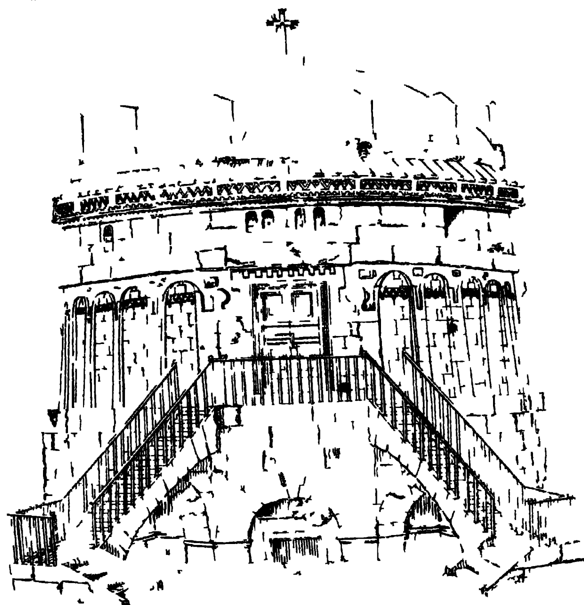
Here lies the distinguished commander of armies,
who guarded Rome and the west in safety
during thrice six years for his serene sovereigns,
ISAACIUS, the companion of kings in battle,
the ornament of Armenia,
being an Armenian of an illustrious family.
After the glorious death of Isaacius, his spouse,
the chaste Susanna, like a faithful turtle dove,
bewails incessantly the loss of her husband,
of that hero who obtained glory by his labours
in the east and in the west,
for he commanded the army of the east and of the west.

end is the tomb of Placidia, sister of Honorius; the urn on one side is called the tomb of Honorius, Emperor of the West; and the third urn is said to have contained the ashes of Constantius, the husband of Placidia, or the remains of Valentinian III., or of both. These urns have no inscription, except the letters $A\overset{X}{P}\Omega$, signifying Alpha Christus Omega, Christ is the beginning and the end. That of Placidia is plain, with perpendicular sides; it is larger than the others. The body of Galla Placidia was seated within the urn on a chair of cypress wood, and was destroyed by fire in 1578, by some boys who introduced matches into the chinks to see what was within.* On the urn of Honorius are sculptured in bas relief two palm trees, and between the palm trees three lambs; the lamb in the middle has a nimbus round the head.

Placidia.—Placidia, daughter of the Emperor Theodosius the Great, and sister of Arcadius, Emperor of the East, and of Honorius, Emperor of the West, was married in 414 to Autolphus, King of the Goths, and successor of Alaric. With Autolphus she lived in Gaul and Spain, and after his death she returned to Ravenna and married Constantius, general of the armies of Honorius. The title of Augustus was bestowed on Constantius, and he was associated with Honorius. By Constantius,

* Ciampini, Vetera Monumenta.

Santa Maria rotonda at Ravenna page 37 Vol II.



Vertical Section



Eng^l feet

Edinburgh Published by A. Constable & Co. 1820

Santa Maria rotonda at Ravenna page 37 Vol II

Placidia became mother of Valentinian and Honoria. Constantius died seven months after his elevation, and Placidia, having disagreed with Honorius, went to Constantinople. On the death of Honorius, Valentinian III. became Emperor of the West, at six years of age. During his minority, and his subsequent inattention to goverment, Placidia ruled. This reign, in name of her son, lasted twenty-five years. She died at Rome in 450, and was buried at Ravenna. She was praised by the orthodox clergy, whom she favoured in preference to the Arians.* There is some mosaic erected by Placidia in the church of Saint Paul without the city at Rome, as the ancient inscription in mosaic testifies, which is published by Gruter.†

Santa Maria Rotonda.—A short distance from the town is the round building, formerly called by some the Catholic Baptistery, to distinguish it from the Baptistery of the Arians. It is called also the Tomb of Theodoric, and a labrum, an antique bathing vessel of porphyry, which is now built in a wall in one of the streets of the town, was formerly placed on the top of this building, and is said to have contained the remains of that prince. This labrum

* See Tillemont. Hist. des Emp. Rom. Ducange Familiæ Byzantinæ. Gibbon's Hist. Decl. of the Rom. Emp.

† See Ciampini, Vetera Monumenta, and Gruter, Corpus Inscriptionum.

was thrown down from the top of the building and broken by some soldiers during a siege of Ravenna in the sixteenth century, that they might take the copper with which it was covered.

The diameter of this building, including the walls, is thirty-four feet. The ground floor was formerly the baptistery, but is now filled with water to within three feet of its arched door. An ascent, composed of two outside stairs, leads to the chapel, which occupies the principal floor. The building is of squared blocks of Istrian marble. The stones composing the arches, which give entrance to the lower floor, are curiously indented into each other.

Roof of One Stone.—The roof is one piece of grey limestone, thirty-four feet in diameter. The form of this stone is that of a shallow cup It has sixteen appendages near the edge resembling the handles of a dish.

Theodoric.

Theodoric, King of the Goths and of Italy, whose remains were placed on this building, was born near Vienna at the Neusidler lake, and educated at Constantinople in the court of the Emperors of the East. After conquering Italy, and vanquishing Odoacer, who was in possession of that country, he reigned over it for thirty-three years, and held the seat of his government chiefly at Ravenna, as the last Emperors of the West had done. A short time before his death, he tarnished the glory and justice with which he had

reigned, by the execution of Boethius and Symmachus, on suspicion of their conspiring to restore the independence of Rome. Theodoric was an Arian. He died at Ravenna in 526.* The writings of Cassiodorus, Secretary of State to Theodoric, which are extant, are interesting on account of the information they contain with respect to the state of Rome and of Italy at the period when Theodoric reigned, and curious by reason of the very peculiar and florid style in which they are composed.

Church of Saint John.—The Church of Saint John is adorned internally with twenty-four columns of Marmo Greco.

Church of the Franciscani.—The Church of the Franciscani has twenty-four columns of antique dove-coloured marble, Bigio Antico. The door of the court is a pointed arch.

Mosaic.—Ciampini describes a mosaic in the church of Sant Agata Maggiore, which he considers to be of the year 400.†

Library.—There is a handsome and extensive library in the monastery belonging to a congregation of Benedictines, and also a collection of objects of art and of natural history. There are some pictures by Luca Lungi, a native of Ravenna, of whom Vasari makes mention in his Lives of the Painters. In

* See Gibbon's Decl. Rom. Emp.

† Ciampini, Monumenta Vetera.

the vestibule of the library is a monument in memory of Guido Grandi the mathematician, who died in 1747; he was a Camaldulensian monk of the Classi order.

Tomb and Monument of Dante.—On the outside wall of a church, and facing the street, is the monument in memory of Dante, adorned by Bembo the Venetian prætor or governor of Ravenna in 1483.

Cardinal Bembo.—Cardinal Bembo, son of this governor, was secretary to Leo X., and author of Poems in imitation of Petrarch, and of a History of Venice in Latin, the style of which is an affected imitation of Cicero. He was a patron and encourager of learning. The monument was again restored in 1692 by Cardinal Corsi the Legate of Romagna, and embellished more recently by the Cardinal Legate Gonzaga. *

Dante.—Dante was born at Florence in 1265. He held some considerable offices in the republic

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* The inscription on the monument of Dante is as follows:

" Jura monarchiæ, superos, phlegetonta lacusque
Lustrando cècini volverunt fata quousque
Sed quia pars cessit melioribus hospita castris
Auctoremque suum petiit felicius astris
Hic claudor Dantes patriis extorris ab oris
Quem genuit parvi Florentia mater amoris."

Another inscription shews that the monument was repaired and decorated by Bernardo Bembo in ICCCC LXXXIII.

of Florence, when Charles of Valois, brother of Saint Louis, passed through Florence proceeding to the conquest of the kingdom of Naples. Dante was of the faction of the Bianchi, who were Ghibilines, partizans of the German Emperor, and opposed to Charles of Valois. Dante and the Bianchi faction were exiled on the approach of Charles. This happened in 1302, when Dante was thirty-seven. He never was allowed to return to Florence. He resided in Verona, Paris, and other places, and in Ravenna, where he died in 1321, at the age of fifty-six, after returning from Venice, where he had gone on an embassy from the Lord of Ravenna. The Florentines several times requested leave to remove the remains of Dante from Ravenna to Florence, but without success; and they had the intention of erecting a monument to his memory.

The only public monument that exists of Dante at this day in Florence is the picture by Orcagna, in the cathedral of Santa Maria del Fiore, in which the portrait of Dante is at full length, and surrounded by a landscape. The works of Dante and of Petrarch were held in great esteem in Italy in the lifetime of these poets; and, in 1373, fifty years after the death of the poet, a professor was appointed to read public lectures in Florence on the commedia of Dante. Boccaccio was the professor. The lectures were read in Saint Stephan's church. Lectures

on Dante were delivered also in Bologna, Pisa, and Venice.*

Scarcity of Water in Ancient Ravenna.—In ancient Ravenna there was a great scarcity of fresh water. Martial says that a water cistern was of greater value at Ravenna, and produced a better rent than a vineyard; † the city being then intersected with canals, into which the sea flowed, as Venice is at this day.

Strabo's Description.—Strabo, who lived in the reign of Tiberius, describes Ravenna in the fifth book of his Geography in the following terms: "The largest city in the marshes is Ravenna, entirely built of wood, and intersected by canals through which the water flows, and the passage from one part of the town to the other is by bridges and

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* See Tiraboschi, Stor. dell. lett. Ital.

† "Sit cisterna mihi quam vinea malo Ravennæ
Cum possim multo vendere pluris aquam."
Martial. Epigr. III. 56

"Callidus imposuit nuper mihi copo Ravennæ
Cum peterem mixtum vendidit ille merum."
Mart. Epig. 57.

The second of these epigrams is translated by Dr Darwin

"Our landlord at Bath put upon us a queer hum,
For, in place of punch, the dog brought us mere rum."

But, unluckily for the translation, water is neither scarce, nor liquor abundant at Bath, and the landlord had no inducement to make the change.

boats. It receives a considerable portion of sea-water at the flow of the tide, so that by the tide and by the rivers the mud is entirely carried off, and the unhealthy state of the atmosphere is prevented. And the place is so healthy that the Roman emperors fixed upon it for the training of gladiators. It is very remarkable and uncommon that the atmosphere is not unhealthy at Ravenna in a marsh. The same is observed at Alexandria in Egypt, where the inundation of the river in summer destroys the noxious effects of the marshes by covering them with water. The state of the vines at Ravenna deserves to be mentioned as wonderful; the marsh causes their rapid growth, and they bear much fruit; but the vines die at the end of four or five years."

Asparagus.—Pliny celebrates the cultivated asparagus of Ravenna.* At Rome, and in other parts of Italy at this day, wild asparagus collected in the fields is used at table in the month of March; they have also cultivated asparagus in the gardens. The wild asparagus is mentioned by Juvenal.†

Ancient Columns.—Many ancient monolithic columns of Levant marble still adorn the churches of

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* "Ecce altiles spectantur asparagi, et Ravenna ternis libris rependit."—Plin. Hist. Nat. Lib. XIX. cap. 4.

† " ———— et montani
Asparagi, posita quos legit villica fuso."
Juven. Sat. XI.

Ravenna, as already mentioned. Some of the columns of marble and of granite were removed to Aix-la-Chapelle by Charlemagne, and, after many centuries, some of the granite columns were brought from Aix-la-Chapelle to the museum of the Louvre at Paris, during the reign of Bonaparte.

Monastery of Classe.—At the monastery of Classe di Fuori, two miles from Ravenna, the church is adorned with twenty-four marble columns, and the tribuna, or apsis, with mosaics, which are much admired. This monastery was deserted by the monks on account of the unhealthy situation. *

Classe, otherwise written Chiassi, is said to derive its name from the Roman fleet, the harbour having been near this place.

The scene of Dryden's tale of Theodore and Honoria, taken from Boccaccio, is in a wood at Classe.

Ancient Harbour.—In the time of Augustus the fleet that guarded the Mare Superum, or Adriatic, was stationed at Ravenna, whilst the station of the fleet for the protection of the Mare Inferum was at the Portus Misenæus, near Naples. The troops belonging to the fleet of Ravenna had their quarters in the Transtevere at Rome, 200 miles distant, as ancient authors mention: it appears from this, that these troops were not much employed in

* Montfaucon, Diarium Italicum.

naval exercise. In the fifth or sixth century this port was filled up by alluvial matter.

Jornandes relates that this ancient harbour of Ravenna was filled with the soil brought down by the Po, and gardens were formed where the harbour had been; and Procopius mentions that, in his time, the city was two stadia or a quarter of an English mile from the sea. The city of Ravenna is at this day five English miles from the sea.

The sea is also rendered shallow by alluvial deposition, and the harbour on the coast can only receive coasting barks.

Strong Position of Ravenna.—The country at the mouth of the Po is now cultivated and populous, the rivers having been confined by embankments; but in the time of Augustus, and in the middle ages, the whole district between Aquileia and Ravenna was covered with woods and morasses, * and in the time of Honorius, Ravenna was the most impregnable fortress in Italy, being surrounded with morasses to the distance of many miles, and connected with the land by an artificial causeway.

Honorius.—To this secure place Honorius transferred his residence in 404, having been exposed to danger in his palace at Milan from the incursions of the Goths.

Ravenna continued to be the seat of government

* Muratori, Antiquit. Ital. Med. æv. Dissert. XXI.

of the Emperors of the West till the year 479, when the last Emperor of the West, Augustulus, was dethroned by Odoacer, the first barbarian king of Italy. *

Theodoric and the Gothic Kings of Italy.—In 493, Theodoric king of the Ostrogoths having conquered Italy from Odoacer, got possession of Ravenna, which was the residence of Theodoric and his successors, till the overthrow of their dominion in Italy by Narses. †

Belisarius gets Possession of Ravenna.---Belisarius blockaded Ravenna in 539, and at last got access by an invitation from the king of the Goths, who admitted him into the city on condition that Belisarius should accept the kingdom of Italy for himself. But the king of the Goths was deceived; Belisarius remained true to his master, and took possession of the place in name of Justinian.

Exarchate.---In 554, after Italy had been depopulated for twenty years by the wars between Justinian's troops and the Goths, the Gothic kingdom of Italy was finally overthrown by Narses, Justinian's general, and Ravenna became the seat of the exarchs, of whom Narses was the first and the most celebrated. Some historians, however, do not

* Gibbon, Decl. of Rom. Emp.

† Alcorno, Ravenna Dominante contains an account of the different princes who have reigned in Ravenna.

reckon Narses amongst the exarchs, as his title was Duke of Italy. *

Exarchs.—The Exarchate of Ravenna commenced in 554, and ended in 752, when Ravenna was taken by the Lombards. During that period of almost 200 years there were nineteen successive Exarchs. The Exarchs were invested by the Eastern Emperor of Constantinople with the full civil, military, and ecclesiaistcal power in Italy. They were the representatives and vicegerents in Italy of the emperor, and they could be recalled by the emperor. The word exarch signifies a chief or leader, and is used by Plutarch in that sense. † Some of the Exarchs adhered to the orthodox church, others were Arians.

During the Exarchate, Ravenna was the first city in Italy; Rome was the second in rank.

Extent of their immediate Dominion.---The immediate jurisdiction of the Exarchs comprehended Ravenna, the district now called Romagna, Bologna; the marshes of Ferrara and Comacchio; the district called Pentapolis, which extends along the coast from Rimini to Ancona, with the country from these towns to the Apennines.

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* See l'Art de Verifier les Dates des Faits Historiques, par un Religieux Benedictin de la Congregation de Saint Maur, 1783.

† *ἔξαρχος τῶν ἱερῶν.*—Plutarch. in Numa

The name Pentapolis is from the five towns, Rimini, Pesaro, Sinigallia, Fano, Ancona. The name Romagna originated after Charlemagne had overcome the Lombard kings, because Charlemagne gave the dominion of the district to the Roman Pontiff, or because it had been the province immediately under the government of the Exarch of the Roman Emperor; in like manner, as the modern Greek language is called Romaic, or the language of the Roman empire of the East.

There were three dutchies subordinate to the Exarchs.

Dutchy of Rome.---The Dutchy of Rome, including Narni and the course of the Tiber to Ostia, Civita Vecchia, Terracina;

Dutchy of Venice.---The Dutchy of Venice, composed of the numerous islands from Grado to Chiozzo;

Dutchy of Naples.---And, The Dutchy of Naples, which was circumscribed by the hostile territory of Capua and the colony of Amalphi.

Between Ravenna and these subordinate dutchies there intervened some territories in possession of the Lombards.

This was the greatest extent of the dominions of the Exarchate, but they were afterwards reduced within narrower limits by the incursions of the Lombards.

Territory of the Lombards.---The kingdom of

the Lombards, at the time the Exarchs were powerful, included what was in later times the terra firma of the republic of Venice, Tirol, the Milanese, Mantua, Parma, Modena, Piemont, Genoa, the Grand Dutchy of Tuscany, the country in the Apennines from Perugia to the Adriatic; and the Lombard Dukes of Beneventum reigned from Capua to Tarentum for nearly 500 years over a great part of what is now the kingdom of Naples.

The Exarchate given to the Popes.---After Pepin and his son Charlemagne had conquered Italy from the Lombards, the immediate territory of the Exarchate was given by the conquerors to Pope Adrian, as the patrimony of the see of Rome, about the year 760.

Origin of the other Parts of the Pope's Territory.---About the same time, and at the destruction of the Lombard kingdom, the Dutchy of Spoleto resigned its territory into the hands of the pope; and before the end of the eighth century, the popes founded their right to the sovereignty of Rome on a donation which they pretended was made by Constantine to Silvester, bishop of Rome. * The act of donation was not authentic. Bayle, however, † in speaking of Gregory VII., to whom the Countess Matilda bequeathed her dominions, ‡ observes, that

* See Gibbon's Hist. of the Decl. of the Rom. Emp.

† Dictionnaire Historique de Bayle, Art Gregoire VII

‡ See page 175.

the title of the popes to their temporal dominions is not inferior to the titles by which many other sovereigns reign.

Afterwards, in the middle ages, Ravenna became a separate independent sovereignty, and was ruled by powerful and enterprising barons like other towns of Italy. Venice got possession of Ravenna in 1440, and in 1509, Ravenna again came under the dominion of the pope, in consequence of a battle gained near Milan by Louis XII. of France.

Battle of Ravenna.—Near Ravenna is a cippus, or small column of stone, erected in memory of the battle of Ravenna, which was fought in 1512. In this battle, in which 18,000 men fell, the French were victorious over the Spaniards, but with great loss, and their general Gaston de Foix, nephew of Louis XII., and governor of Milan, was killed at the age of twenty-four. The French afterwards sacked Ravenna.

From Ravenna I returned to Forli, and proceeded on the road to Bologna.

Faenza.---Faenza, in Latin Faventia, is a town of 17,000 inhabitants.

Old Earthenware.—The majolica or earthenware, painted after designs of Raphael, Julio Romano, Perrin del Vague, Giovanni da Udine, and Albert Durer, of which specimens are preserved in many cabinets of curiosities, was made at Faenza, in the fifteenth century.

Castelfranco was the maker of this pottery. Raphael having been employed to make designs for this earthenware, an author unluckily, in some publication, gave Raphael the appellation of a painter of mugs, boccalajo d'Urbino; Tiraboschi says, that this was considered as a bestemmia pittoresca, a blasphemy against the genius of painting, and excited the immense indignation of the whole body of painters and admirers of the art.

And Modern.—This heavy kind of earthenware, of a light red body covered with an opaque glazing, is called by the French Fayence, from the name of this town, and it is still manufactured for common uses here, as well as stoneware in the English manner. Lalande, in speaking of Faenza, says, that an Italian, who observed a kind of earth at Nevers similar to that used at Faenza, was the first who gave rise to the manufacture of fayence in France.

Majolica is the name by which the common heavy earthenware is known in Italy, and the word is said to be derived from Majorica or Majorca, in which island this kind of pottery was made. *

There are considerable silk spinning mills and a paper manufactory.

Near Faenza are the hot springs of Saint Christopher. Sulfur is found in the neighbourhood of Faenza.

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* Menage Orig. Dell. Ling. Ital.

Caesar Borgia.—In 1506, and during the life-time of his father, Alexander VI. Cæsar Borgia made himself master of Pesaro, Rimini, Cesena, Forli, Imola, and the surrounding country, the dutchy of Romagna, part of the ancient Provincia Æmilia, which he governed in a tyrannical manner. He is remarkable as one of the most criminal characters recorded in history. He was born out of marriage; his mother was Julia Farnese, a Roman lady; his father, Alexander VI., of the Spanish family Lencoli, was descended from the Borgia family, also Spanish, by the female line. Alexander made Cæsar a cardinal, but Cæsar was not disposed to lead the life of an ecclesiastic. Cæsar murdered his elder brother from jealousy, thinking that his brother was more favoured by their sister Lucretia Borgia, to whom they both made love. Louis XII. of France created Cæsar Duke of Valentinois. His father, Alexander VI., was poisoned by some wine which he and his son Cæsar had prepared for Cardinal Cornetto, to whose riches they wished to succeed. After the death of Alexander, Cæsar attempted to intimidate the conclave, and influence the election of the pope, by means of troops that he commanded; but he failed in this, and Julius II. being elected, the new pope caused Cæsar to be detained in prison at Ostia till he gave up and restored to the Holy See the towns of Romagna he had seized. Cæsar was afterwards put in prison in Spain, and, having escaped,

he took refuge with Jean Albret, king of Navarre, brother of his wife. Cæsar was killed in 1507, at a siege which Jean Albret was carrying on against the castle of Viane in Spain.

Imola.—After Imola we leave Romagna, and enter the territory of Bologna, and the great plain of Lombardy becomes wider before us.

Bologna.—Modena.—Of Bologna and Modena, the two first cities that occur on this road, we have spoken before.

The fertile plain country between Bologna and Modena is highly cultivated and inclosed. On entering the dutchy of Modena the baggage is subjected to a minute and troublesome examination, as on entering at the frontiers of other states.

Weather, 5th April 1818.---The sky is in general clear; the mornings cool, sometimes with hoar frost; the afternoon warm from the influence of the sun. The Apennines, twenty or thirty miles distant to the S. and S. W. are seen covered with snow.

House of Este.---Muratori has given the history of Modena and of the family of Este in the work entitled Antichita Estensi. In 1288 the citizens of Modena chose Obizzo I. Marquis of Este, to be their sovereign. Modena was taken by the troops of Julius II. under the command of Francesco Duke of Urbino, in 1510; and Leo X. had possession of the place, but Alphonso of Este recovered it by force of arms in 1527.

The family of Este is deduced by Muratori in his Antichita Estensi ed Italiane, from Bonifazio, Count of Lucca and Duke of Tuscany, in 829.

Azzo d'Este was Podesta of Ferarra in 1199. Albert Azzo, born about 996, Marquis of Italy, Lord of the Lunigiana, Lord of Este and of Rovigo, married Cunegonda, a princess of the house of Guelf, and left by her Guelf IV. Duke of Bavaria, from whom the reigning branches of the house of Brunswick are descended.

The family of Este and the Count of Maurienne, now King of Sardinia, are the only great families now reigning in Italy that can trace their line of genealogy to the remote times of the middle ages. The rest of the numerous families that held sovereign power in different towns of Italy in the middle ages have ceased to reign.

Pigeons.—A great number of pigeons are kept by the inhabitants of Modena. These pigeons fly into the country during the day and return at night.

Lalande mentions, that, at Terni, there were pigeons called Mandrini, trained to decoy the wild pigeons to the trees where the fowler takes them with nets, and in this way he saw 150 taken in a day in the month of October. †

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* Muratori, Ant. Ital. Dissert. 51.

† Voyage en Italie fait dans les années 1765, 1766, par M. de Lalande.

Mountains of the Dutchy of Modena.---Pursuing the road to Parma we have the Apennines on our left hand. These mountains of the dutchy of Modena are divided into three classes. The highest are covered with pasture, have beech and pine growing on their sides, and are inhabited by shepherds and their flocks. On the lower mountains are chesnut trees, vineyards, and some cultivated fie . During four months of the year chesnuts constitute the food of the inhabitants of these mountainous regions. The lowest hills are covered with copses, vineyards, and cultivated fields.

Mud Volcano.---At Montegibbio, in the dutchy of Modena, is a small volcano, of the kind called salsa in this country, the crater of which contains liquid mud in a state of ebullition; this ebullition proceeds from the bubbles of gas that are constantly rising through it. Another volcano of this kind is at Querzola, the neighbouring earth is impregnated with salts. A smaller mud volcano is at Mendola.

Petroleum.—Pitcoal.—There are fountains with petroleum swimming on the surface of the water, and strata of pitcoal are found in some parts of the mountains.

Gypsum.—Quarries of gypsum are wrought in different places.

Sal Modenese.—The sal modenese, which is sold as a purgative medicine, is got by evaporating a mi-

neral water at San Faustino. This salt consists of sulphate of magnesia, or Epsom salt, along with some sulphate of soda, or Glauber's salt.

Marble.—The great marble quarries of Carrara, which belong to the Duke of Modena, afford blocks of marble of a great size without fissures, and fit for large statues, surpassing in these respects all other marble quarries now wrought in Europe. There are some other marble quarries of less note in the dominions of the Duke of Modena.

Ancient Paper Manufactory.—Paper was manufactured at Finale, in the dutchy of Modena, in 1424; in that year, and afterwards, in 1444, a privilege was granted by the Marquis of Modena, ad faciendas chartas papyraceas et bombycinas. *

Cotton Paper.—The term *χάρτης βομβύκινος* is used by the Byzantine authors to denote cotton paper, and bombaso, in the account of Marco Polo's Travels, is the word employed to signify cotton. This kind of paper was also called Charta Damascena, from Damascus, where it was manufactured. Cotton paper was introduced into the eastern empire from China or India, where paper is made in perfection to this day, from cotton rags, and from the bark of the paper-mulberry. Montfaucon thinks that the period of the introduction of

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* Corographia dei Territori di Modena Compilata da L. Ricci, l'anno 1788.

cotton paper into the eastern empire was about the ninth century; the oldest manuscript he had seen on cotton paper with a date was of the year 1050; some without a date he conjectured to be of the tenth century. The number of manuscripts on cotton paper in the great libraries of Europe is very considerable. Some of the books printed by Aldus are on cotton paper.

Papyrus.—From the beginning of the Roman empire to the sixth century, the material commonly used for writing upon in Rome and the provinces was the paper made in Egypt of the pellicules of the plant called biblos by Strabo, and papyrus by other authors. The process for making this paper, as practised at Alexandria, is described by Pliny. * The papyrus was written on with a reed, with ink made of lamp-black, and not of oak gall-nut and green vitriol, as the ink now used is. Montfaucon mentions some charters on papyrus as late as the eleventh century, but the use of cotton, and afterwards of linen rag paper, at last became general, and the manufacture of papyrus in Egypt was wholly abandoned.

Linen Paper.—According to Montfaucon, paper from linen rags began to be made about the eleventh century; he cites an author who lived in

* Plin. Hist. Nat. L. XIII. c. 11.

the time of Saint Bernard, who speaks of paper, "ex rasuris veterum pannorum." *

A charter of 1239 on paper is mentioned in the Traite de Diplomatique. †

Castles.—On the mountains of the dutchy of Modena are many ruins of castles, which were the strongholds of the independent barons in the tenth, eleventh, and twelfth centuries.

Montecuccoli.—The castle of Montecuccolo gave birth, in the seventeenth century, to the celebrated General Raimond Montecuccoli, commander of the Austrian troops in the thirty years war.

Monastery of Nonantola.—The powerful monastery of Nonantola in the dutchy of Modena was founded in 753, and contributed much to drain and bring into culture the ground overflowed by the rivers. Tiraboschi has written the history of this monastery. ‡

Bridge over the Secchia.—We proceed from Modena, and near Rubiera the road passes the Secchia by a large modern bridge of brick of nine arches.

Correggio.—Six miles to the north of the road.

* Dissertation sur le papier d'Egypte, par le R. P. D. Bernard de Montfaucon, in the Mémoires de l'Academie des Inscriptions, Tome Sixieme, 1729.

† The Origin and Progress of Writing, by T. Astle, 1803 chap. 8.

‡ See Ricci, Corografia di Modena.

and twelve miles north-east of Modena, is Correggio, the birth place of the great painter Antonio Allegri, called Correggio.

Reggio.—Reggio, anciently Regium Lepidi, is a neat town of 22,000 inhabitants.

The museum of objects of natural history collected by Spalanzani, belongs to the Modenese government, and is kept at Reggio.

Ariosto.---Ludovico Ariosto was born at Reggio of a Ferrarese family in 1474, and died in 1533. He was employed as ambassador from Alfonso Duke of Ferrara to Julius II., and as commissary or intendant of the territory of Garfagnana. The tranquillity of his life was disturbed by law-suits about an inheritance. His Orlando Furioso went through sixty editions in the course of the sixteenth century; it is generally esteemed the most excellent poem in the Italian language. Ariosto's satires also, and comedies in verse, are excellent. A monument is erected over his tomb in the church of Saint Benedict at Ferrara.*

Between Reggio and Parma we leave the territory of the Duke of Modena, and enter the dutchy of Parma, and the traveller is subjected to the inconvenience of having his baggage searched, as is practised on entering the territory of other states.

Parma.---Parma is surrounded with bastioned

* See Tiraboschi, Stor. dell. Lett. Ital

walls, and contains 30,000 inhabitants. The houses are of brick, plastered over as in most of the towns in this part of the country.

The church della Steccatta, with a cupola of a pleasing form, is designed by Bramante.

Cathedral.—The cathedral is in the round-arched style of architecture, as is also the octagonal baptisterum, which is situated near the cathedral.

Pictures by Correggio.—The cupola of the cathedral is adorned with fresco paintings by Correggio, which are considerably injured by time: the subject is the Assumption of the Virgin.

The cupola of the church of Saint John also is painted by Correggio, and is much injured by time.

His Saint Jerom.—In the academy of painting is the Holy Family, with Saint Jerom, which is reckoned Correggio's masterpiece. This picture was in the Louvre during Bonaparte's reign.

Parmegianino.---The celebrated painter Francisco Mazzuoli, called il Parmegianino, was born at Parma in 1504, and died at 36.

Lanfranco.—Lanfranco, another eminent painter, was born at Parma in 1647, and died at 66.

Collection of Antiquities.—In the collection of antiquities, amongst other objects of note are the following: a large bronze table found at Velleia, on which is engraved an obligation to found an hospital in the year 500 of Rome. This bronze table

contains the names of many villages near Velleia, the names of which at this day are little altered: the inscription was explained and published by Muratori. A fragment of the Roman laws, which were in force in Gallia Cisalpina, engraved on bronze.

Ancient Mill-Stones.—Some ancient mill-stones, of a dark-coloured porous stone, which resembles a volcanic rock. The upper surface of the lower mill-stone is in form of a cone, and the upper mill-stone fits on this cone. The upper mill-stone is perforated so as to receive a lever for turning it.

A great part of the antiquities in this collection are from the excavations made at Velleia.

Velleia.—The ruins of Velleia, in the country of Placentia, are forty miles from Parma. These ruins are in the Apennines, in the village of Massinesso, fifteen miles south of Placentia, on a stream that runs into the Chiavenna. The way to Massinesso leaves the great high road at Fiorenzola, and passes through Lugagnano. Velleia was destroyed by the falling down of the face of the mountain on the side of which it was situated. Some suppose that the destruction of Velleia happened in the fourth century. Medals of the emperors after Constantine, and of the year 337, are found in the ruins. Excavations were made in the ruins in 1760, and continued for four years, by order of the Duke of Parma. A plan of the excavations is seen in the

Gallery at Parma. Velleia was anciently the chief town of a small republic in Liguria; and after it came under the dominion of the Romans was governed by decemviri.

The excavations and antiquities found at Velleia are described in a treatise by Father Paciaudi, a Theatin monk.

Some statues were found. The head of a colossal statue of Adrian, a young Nero, Galba; and several inscriptions of Germanicus, Vespasian, Aurelian, Julia Mammea, and others.

Library.—The library is considerable. The collection of books was begun in 1763 under the direction of Paciaudi.

A celebrated collection of ancient medals and statues, and a library, formed by Ranuccio I., and a fine collection of pictures, was removed to Naples in the seventeenth century.

Old Theatre.—The large old theatre, which was admired as one of the finest in Europe when it served for the brilliant festivals of the Farnese princes, is now neglected, and its pasteboard decorations are covered with dust and cobwebs. It is in form of a great rectangular hall, and was erected in 1619, by Ranuccio I. Farnese, Duke of Parma, Placentia, and Castro.

Ducal Palace.—The ducal palace, an irregular set of buildings, and altogether without ornament, is,

at this time, April 1818, the habitation of Marie Louise, the consort of Bonaparte.

Cradle.—The only object of curiosity that was shewn in the palace, was the silver cradle for young Napoleon, and the silver toilette, both presented to her by the city of Paris. The cradle is ornamented with reliefs of the wolf suckling Romulus, in allusion to the title of King of Rome.

The Palazzo Giardino, or garden palace, without the walls of the city, contains some pictures.

Colorno.—The country palace of the princes of Parma is at Colorno, ten miles north of Parma.

Bodoni.—Manuel de l'Imprimeur.—The royal printing-house of Parma was established about 1765, when Bodoni was employed to cast types for it. The printing establishment of that celebrated letter-founder and printer is now carried on by his widow. Amongst his publications is the Printers' Manual, which contains specimens of a great variety of types.

Condillac.—L'Abbe de Condillac, a native of Lyons, celebrated on account of his writings on logic and metaphysics, resided at Parma as preceptor to the young Prince of Parma in 1765. He published, in sixteen volumes, the course of study in which he had exercised the prince.

Water.—Parma is supplied with water by means of a conduit or aqueduct, which is fifty miles in length according to Lalande.

History of Parma.—Parma was founded by the Boii, and became a Roman colony eighty-eight years before Christ. It was situated in the province Emilia.

After the destruction of the western empire, Parma and Placentia, like other towns of the province Emilia, were subject to the Lombards from 570 to 590, and were then for some time in possession of the exarchate.

They were conquered by Charlemagne along with the rest of the kingdom of the Lombards in 774. The distant residence of Otho I. and the other German emperors, successors of Charlemagne, enabled Parma and Placentia to shake off the yoke, and to assume a republican form of government, as many other cities of Italy at that time did, electing their own magistrates; but most of those cities, in course of time, submitted to hereditary lords who sprung from some of the powerful families. In the twelfth century there were wars between Parma, Placentia, Reggio, and Cremona.

In 1218 the people of Parma sent into banishment their governor or podesta, and all the nobles.

In 1245 the Emperor Frederic II. got possession of Parma, and, in 1247, the people of Parma and the pope's party defeated Frederic.

In 1271 Placentia gave itself to Charles I. King of Naples, and afterwards elected Scotti to be sovereign and perpetual lord.

In 1322 and 1326, Placentia and Parma, by the

address of the pope's legate, chose the pope for their lord during his life.

In 1341, Mastin della Scala, lord of Verona, had possession of Parma, and in 1344 sold it to Obizzo Marquis of Este, who sold it in 1346 to Visconti Duke of Milan. Terzi was the general employed by Visconti. Terzi took Parma for himself, but was afterwards defeated and slain. Parma continued under the dominion of the sovereigns of Milan till 1513.

In 1515 the dutchy of Milan and Parma was conquered by Francis I. of France, but he was unable to retain them long.

The Farnese Dukes of Parma.—In 1521 Parma came into possession of the pope. Paul III. Farnese, of an old family of Orvieto, was elected pope in 1534.* This pope had several natural children in his youth; to one of these sons, Pietro Luigi, he gave the dutchy of Parma and Placentia, having got the consent of some of the cardinals. Pietro Luigi governed the dutchy with cruelty, and was engaged in the conspiracy of the Count of Fiesco against Andrew Doria, the friend and partizan of Charles V. Pietro Luigi was put to death by a conspiracy. His son Cardinal Alexander Farnese built the Farnese palace at Rome, and the church Del Gesu, two fabrics very considerable amongst those of modern Rome.

* Sansovino, Famil. Illustri d'Ital

Octavio Farnese, the son of Pietro, succeeded to the dutchy of Parma; he went over to the party of Charles V., and thereby grievously offended his grandfather Paul III.; and Paul, on his deathbed, expressed his repentance and contrition of heart for having bestowed a principality on his son. Octavio married Margaret of Austria, a natural daughter of Charles V., and widow of Alexander de' Medici, Duke of Florence; and Charles V. confirmed Octavio in the possession of the dutchy of Parma.

Alexander was son of Octavio, and reigned as Duke of Parma from 1586 to 1592. Ranuccio I. began to reign in 1592, and died in 1622. The two equestrian statues at Placentia represent Alexander and his son Ranuccio I.

The dutchy of Parma passed by inheritance to the descendants of Elisabeth Farnese, who married Philip V. in 1714. Austria yielded the dutchy to Spain by the peace of Aix la Chapelle of 1748. In 1751, at the death of Antony Farnese, the last duke of that line, notwithstanding the protest of the holy see, which claimed the dutchy, the King of Spain sent his son to take possession. At Rome, on the 29th of June, it was usual, after the horse was presented to the pope by the constable of the kingdom of Naples, as was annually the custom, that the Fiscale della Camera read from the loggia of the Vatican Basilic two protests, one respecting

the tribute due by the King of Naples, and the other respecting the dutchy of Parma and Placentia.

In 1769 the infant Duke of Parma married an Archdutchess of Austria.

The dutchy is now, in 1818, under the government of the house of Austria. The Archdutchess of Austria, Marie Louise, resides at Parma, with the title of Dutchess of Parma, Placentia, and Guastalla.

River Tarro.—Between Parma and Borgo San Donino we cross the Tarro, which deposits gravel on a great breadth of ground. This river is here divided into two branches, each of which is passed by a swinging boat. The passage is difficult when the river is flooded. A bridge with elliptical arches is constructing, and the piers are already finished. The Tarro rises in the Apennines and flows into the Po.

Bees.—Bees in this part of the country are kept in hives formed of the hollowed trunk of a tree one foot in diameter, and two feet high. These hives are placed on a shelf fixed to the outer wall of the house high up, being eight or ten feet from the ground.

Placentia.—Through Borgo San Donino and Fierenzuola we arrive at Placentia, a city of 25,000 inhabitants, and the second city in the dutchy of Parma, Placentia, and Guastalla.

Cathedral.—The cathedral is a pleasing piece of

architecture; the interior is in the round-arched style of the middle ages, with some pointed-arched Gothic in the nave. This church contains fresco paintings by Ludovico Caracci, and other eminent masters.

Town-house.—The town-house, of round-arched Gothic, with mouldings and ornaments of brick, produces a good effect.

Modern Pictures.—In the church of San Giovanni in Canali are pictures by Cammucini and Landi, the two most esteemed painters in Rome of the present day.

Equestrian Statues of the Farnese Dukes.—In the great piazza are two equestrian statues of bronze, the one representing Ranuccio Farnese I., the other his son Alexander Farnese, Dukes of Parma and Placentia.

Cross the Po.—Placentia is on the right bank of the Po, and soon after leaving the city, the road crosses the Po by a bridge of boats. The channel is wide, and much ground is covered by the gravel which the river brings down. The breadth of the river at this time, on the 7th of April, measured along the bridge, is 760 feet, and there is about 300 feet more of the bridge which at this time lies dry on the gravel, but is afloat when the river is full of water.

Austrian Customhouse.—Having crossed the Po, we are in the Austrian territory, and the baggage

and passports are examined at the Austrian custom-house.

Appearance of the Country.—The country is plain; the soil sandy and highly cultivated; the fields are divided by rows of pollard willows and of poplars, and by ditches or small canals of running water, which serve for watering the fields.

Rice Grounds.—There are some rice grounds, risiere, which are now ploughed and covered with water three or four inches deep, with great numbers of frogs croaking in them; the water is kept on the rice ground till the grain is ripe, and in summer a very offensive smell arises from these fields so covered with water, nearly in a state of stagnation, and charged with putrid vegetable matter.

The atmosphere in the vicinity of the rice grounds is rendered unhealthy by the effluvia of the stagnant water, and the inhabitants are affected with intermittent fevers and induration of the spleen, which is one of the symptoms of the intermittent fever.

Lodi.—After Casal Pusterlengo, we arrive at Lodi, a town of 12,000 inhabitants.

Lodi was founded by the Boii, who came across the Alps from Gallia Lugdunensis. * It was called by them Alauda. Afterwards it acquired the rights of a Roman colony, under the Consul Pompeius Strabo, and was called Laude Pompeia. About

* Plin. Hist. Nat. Lib. III. cap. 21.

1150, the ancient town was destroyed by the hostile government of Milan. The town, which exists at this day, is situated at some distance from the old.*

The church of the Incoronata was designed by Bramante.

Lodi is on the right of the Adda, over which there is a bridge, but the road we follow leaves the bridge and the Adda to the right. In 1795, Bonaparte overcame the Austrians in the battle of the bridge of Lodi, crossed the Adda, and made himself master of that part of Lombardy which is on the other side of the river.

Cheese.—The territory of Lodi is intersected by canals for irrigating the fields, and contains extensive dairies, in which much of the cheese called Parmesan is made. The number of cows kept in the province of Lodi for the making of cheese is said to be 30,000.

Draught Oxen.—Horses.—Oxen are generally used in drawing waggons, and in ploughing the ground in the pontifical state on both sides of the Apennines and in Tuscany. Some horses are seen ploughing between Lodi and Milan.

Weather.—On the 8th of April, the weather for some days has been fine, some hoar frost in the morning. From the vicinity of Parma the snow co-

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* Villanov. Hist. Laudis Pompeiæ in Græv. Thes. Ant. Ital. Tom. III.

vered Apennines, were seen to the south fifteen or twenty miles distant.

Fruit Trees.—In the little gardens of the villages, the apple trees, cherry trees, and peach trees, are in blossom. They are all standard trees, and no old trees amongst them, but mostly of the age of ten years. At Milan, and in the neighbourhood, the blossom and germ of the fruit of the peach is sometimes destroyed by the frost.

Swallows.—Swallows, near Milan, had already completed their nests on the 8th of April.

Cray Fish.—Women and boys were employed in taking cray fish, gammarelli, with their hands, from under the stones in a running canal by the side of the road.

Milan.—We arrived at Milan; the distance from Rome by the Furlo road which we came, is 403 English miles.

CHAPTER VIII.

MILAN. History.—Cathedral.—Brera.—Ambrosian Library. Cenacolo of Leonardo da Vinci.—Circus and other objects. —Ancient Colonade.—Hospital.—Mint.—Manufactures.— Cheese Dairy.—Theatres.—Dialect.—Gazette.—Echo.— Monza.

History.—MILAN was founded, it is said, by the Cenomanni Gauls, 590 years before Christ. *

The Roman army under Marcellus conquered Insubria and took Milan, the chief town of that district, 222 years before Christ; and afterwards Milan, under the dominion of the Romans, was the principal town of Cisalpine Gaul. It was at that time called Mediolanum.

Maximian, the colleague of Diocletian, and some other Roman emperors, held their chief residence at Milan. In the sixth century Milan was taken and retaken by the troops of Justinian, and by the Goths. In 1162 it was sacked and almost wholly destroyed by the Emperor Frederic Barbarossa.

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* See Freret, in the 18th Vol. of the Mem. de l'Acad. des Belles Lettres.

The family della Torre, or the Torriani, were lords of Milan from 1257 to 1276.

Mattei Visconti was declared lord of Milan in 1313.*

Gian Galeazzo Visconti, the grandson of Mattei, was the most celebrated of the Visconti family; he died in 1402. The cathedral of Milan, the Tesino bridge at Pavia, the Certosa of Pavia, were built in his reign.

Filippo Maria Visconti, Duke of Milan, died in 1447 without male issue. His daughter Bianca was married to Count Francesco Sforza, son of Sforza Attendolo da Cotignola, celebrated as one of the captains, Capitani venturieri, who, in the fifteenth century, made a trade of enrolling troops, and went with them into the service of any of the Italian princes who paid them best. Francesco Sforza, the son of this captain, was also a distinguished warrior, and got himself elected Duke of Milan by the nobles and principal inhabitants in 1450. Francesco Sforza reigned with justice.

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* See Memorie Spettanti alla Storia e al Governo di Milano ne' secoli bassi dal Comte Georgio Giulini. 1760.

The History of Milan, by Fra Paolo Moriga, of the order of Gesuati, written in the sixteenth century, is mentioned by Tiraboschi as containing many fables with respect to the ancient part of the history, but the more modern events are related with candour and simplicity.

Louis XII. of France, whose mother was a princess of the Visconti family, made himself master of the dutchy of Milan in 1499, but lost it soon after. His successor Francis I. had possession of the dutchy for some time, but lost it in consequence of the battle of Pavia in 1525. In 1534 Charles V. invested his son Philip II. with the dutchy of Milan. Philip, and the kings of Spain, his successors, possessed it till 1706, when the Spanish branch of the house of Austria became extinct. The emperor Joseph I. then made himself master of it, and it continued in the possession of the emperors, his successors. It was the capital of Bonaparte's kingdom of Italy, and the residence of the viceroy Eugene Beauharnois. After the fall of Bonaparte's power, Milan again came under the house of Austria, and is now the principal town and seat of government of the Lombardo-Venetian kingdom.

Cathedral.—The Duomo, or cathedral of Milan, is a pointed-arched Gothic edifice, ornamented with pinnacles and sculpture, and built of a white marble, brought from the lakes of Como and Maggiore. The white colour of the marble contributes much to the beauty of this magnificent building. It was begun in 1386, in the reign of Gian Galeazzo Visconti, Duke of Milan. A particular account of the different architects employed in building the cathedral is published by Count Giulini.

The dimensions are stated to be as follows :

	English feet.
Length within the walls, - - -	445
Length of the cross transept within walls,	$289\frac{1}{2}$
Height from the pavement to the top of the spire, ($108\frac{576}{1000}$ metr.) * - - -	356
Height of each of the fifty-two pillars that separate the nave and aisles, - -	77
Height of the spire from the roof of the church,	$176\frac{1}{2}$

The first architect employed was Marco da Campione, a native of the country, near the lake of Como. The others were Italian, except a French artist of the name of Buonaventuri. †

The front, in which the doors and windows have Roman pilasters and pediments, discordant with the Gothic ornaments by which they are surrounded, was begun in the sixteenth century, after a design of Pellegrino Tibaldi, ‡ and executed by Bassi,

* The metre is $39\frac{37}{100}$ English inches. See the length compared with Saint Peter's, page 294, Vol. I.

† See Tiraboschi, Stor. dell. lett. Ital.

‡ Pellegrino Pelligrini, called Pellegrino Tibaldi, painter and architect, was born at Bologna in 1527, and died at Milan in 1598, at the age of seventy-one. He designed the Borromeo College at Pavia, and the front of the cathedral of Milan. After the death of Sforza, Duke of Milan, in 1535, Milan came into the possession of Spain, in whose dominion it remained till the beginning of the eighteenth century. Pellegrini was employed by the Spanish court, and by order of Philip II. he designed the Escurial, and passed nine

called in Latin Butius, architect of the city. This design was only executed in part, and the higher part of the front was not finished till 240 years after, when Milan came under the power of Bonaparte, by whose orders the upper part of the front was terminated in the pointed-arched Gothic style, after a design of the architect Amati.

Pointed-arched Buildings in Italy.—The exterior produces a fine effect, both on account of the architecture and the white colour of the marble. It is the largest and most magnificent pointed-arched building in Italy, but is inferior in uniformity of design to several buildings of the pointed-arched style in England, France, and Germany, such as the cathedral churches of York, Salisbury, Amiens, Chartres, Paris, Strasburg, Vienna, and Batalha in Portugal.

Some of the other pointed-arched Gothic buildings in Italy are, the Ducal Palace at Venice, a fine specimen of that style; the interior of the church of Saint Anthony at Padua; the interior of Saint Petronius at Bologna, begun in 1390; the interior of Santa Maria Novella at Florence; the interiors of some churches at Venice and Verona; the Cam-

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years in Spain superintending the execution of that great building, which he also embellished with paintings by his own pencil.

An orthographic view of Pellegrini's design of the front of the cathedral is published in Grævii, Thes. Ant. et Histor. Ital. Tom. II. Lug. Bat. 1704. In that view the design of the windows is ascribed to Butius.

po Santo at Pisa, constructed in 1200; the cathedral of Sienna. At Rome there is scarcely any of the pointed-arched architecture.

In the twelfth, thirteenth, and fourteenth centuries, whilst pointed-arched architecture was employed for large churches without the Alps, the round-arched style with Corinthian capitals prevailed in Italy, and the pointed-arched style was but rarely employed.

Interior.—The interior produces a grand effect. It is also pointed-arched.

Iron Bars.—Each of the arches of the nave and aisles is held together by a tie-rod, or bar of iron, placed in the direction of the cord of the arch. This iron bar is necessary in many Gothic buildings, notwithstanding the support the arches receive from the buttresses.

Monument designed by Bonaroti.—The monument of Gian Giacomo Medici is after a design of Bonaroti. Gian Giacomo was brother of Pius IV. de' Medici, a Milanese family, different from the Medici family of Florence.

Shrine of Saint Charles Boromeo.—The body of San Carlo Boromeo, the virtuous and active bishop of Milan, is enshrined in a subterraneous chapel. Amongst the various votive gifts placed in the shrine is a crown of gold, given by the Empress Maria Theresa.

San Carlo Boromeo was born of an illustrious

family at Arona, on the lake Maggiore, in 1538. Whilst he resided at Rome he inspired Pius IV. de' Medici, his uncle, then an old man, with activity and energy for the good of the church. He was cardinal and apostolic protonotary, and held other offices of importance at the papal court. He co-operated in the Compendium of Christian Doctrine, published at the recommendation of the council of Trent, and called Catechismus Tridentinus Romanus, or Catechismus ad Parochos. When he was appointed bishop of Milan he gave up his patrimonial possessions to his relations, and divided the revenue of his bishoprick of Milan into three parts; one of which he gave to the poor, the second he bestowed on the expences of the church, and the third on his own expences, which were small, as he lived entirely without shew. The example of his regular and religious life extended to the court of Pius V. He reformed the great abuses that prevailed before his time amongst the regular and secular clergy of the diocese of Milan, occasioned by the neglect and non-residence of the bishops, his predecessers; and his rules became the model which other Catholic churches tried to imitate. He held many provincial synods and councils to establish the rules prescribed by the council of Trent. He instituted elementary schools in every part of his diocese, and visited the parish churches of his diocese, even in the most mountainous districts.

San Carlo having tried to reform the monastic order of the Humiliati, they conspired against him, and one of the monks made an attempt upon his life. The order was in consequence dissolved by the pope.

The governors of Milan who governed for Philip of Spain were jealous of the authority exercised by Saint Charles, and contended against many of his regulations.

San Carlo died in 1584, at the age of forty-six. He was canonized in 1610. His writings, consisting of his Provincial Councils, or Acta Ecclesiæ Mediolenensis, Homilies, his Noctes Vaticanæ, or Discourses delivered in the Academy, formed by him for the Advancement of Literature which assembled in the Vatican, and other works, are published in several folio volumes.

Statue by Agrati.—The statue of Saint Bartholomew, with his skin thrown over his left shoulder, by Agrati, with the well known inscription, * in which the sculptor is compared to Praxitiles, produces the effect of an anatomy figure, being without expression.

Spire.—The columns, at the intersection of the nave and transept, are not strong enough to support a tower or spire proportioned to the size of the building; the pillars that support the spire, as well as those of the nave, being about ten feet in diame-

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* Non me Praxitiles sed Marcus finxit Agrati.

ter. The spire, as it is, looks like a set of small pinnacles substituted in place of a complete spire. It was doubtful if the building could support even this spire. Frisi and Boscovich were consulted in 1765, before the spire was erected.* On the top is a figure of the Virgin, to whom the church is dedicated.

View.—From this spire is a fine view over the extensive fertile plain in which Milan is placed. The northern horizon from east to three points S. of W. is bounded by the Alps.

Mont Blanc, and the great Saint Bernard, form the highest part of the chain, a little north of west, 120 English miles distant. The Alps to the north-west, towards the Simplon, subtend about ninety minutes in height.

The Simplon mountain is eighty English miles distant. At this season all that portion of the Alps which is seen from this point has snow on the higher part. The lower mountains that are nearest to the eye are without snow.

Apennines.—The southern horizon is bounded by the Apennines, whose height subtends fifty minutes, their distance being sixty or seventy miles. There is now on the 13th of April much snow on them.

Hills of Piemont.—On the horizon to the south-west are seen the Piemontese hills in the neighbour-

* Frisi, Saggio Sopra l'Architettura Gotica. 1766.

hood of Turin, eighty miles distant; they appear very small.

Brera.—Gregory XIII. established many colleges of Jesuits in different parts of Europe; and with the authority of this pope, in 1572, Saint Charles Boromeo placed eighty Jesuits in the college of Brera, for the purpose of giving instruction in the elementary, as well as the higher branches of knowledge.

Before that Brera was occupied by the monastic order of the Humiliati, which was suppressed in 1571, because some of the monks had conspired against the life of Saint Charles. The edifice of Brera is now called the Palace of the Sciences and Arts, and contains the university of professors, who give lectures on various branches of science, the academy of painting, the gallery of pictures, and the academy of engraving.

Quadrangle.—The building of the college of Brera is handsome and extensive. The quadrangular court is surrounded by open galleries, with columns and arcades both on the ground floor and first floor, constructed 100 years ago, in the time of the Empress Maria Theresa. Part of the building is of the seventeenth century, of the time of Cardinal Frederic Boromeo.

Astronomical Observatory.—The observatory is the best furnished in Italy, and was formed in 1766 under the direction of Boscovich. It contains a six

feet transit instrument by Reichenbach. A great mural quadrant, about eight feet radius, by Ramsden; another of the same size for stars on the other side of the zenith was in this observatory, and has been sent to Padua. A large equatorial instrument by Sisson. An eighteen feet reflector by Amici, an artist who resides at Modena. Clocks, with gridiron pendulums, by Mighele of Milan. A clock by Arnold. They have not the mercurial pendulum, now generally used for accurate clocks in England, though the Abbate Cesaris long ago published a paper in the Ephemeris of Milan recommending its use.

Ephemeris of Milan.—The celebrated astronomers Oriani, now advanced in age, and the Abbate Cesaris, have the charge of this astronomical establishment. They publish an astronomical Ephemeris annually.

Cardan.—Of the eminent men who taught in Milan in the sixteenth century was Cardan; he was professor of medicine at Milan in 1543. He was born at Pavia of a Milanese family in 1501, and died in 1576. His character was extremely variable and inconstant, as appears from the account he has published of his own life. He went to Scotland, in 1552, to give medical advice to the Archbishop of Saint Andrew's. He received invitations to settle in France, Denmark, and Scotland, from the sovereigns of these countries, but refused their

offers. He taught in Pavia and Bologna. In 1571 he was in Rome, and a member of the medical college there. His knowledge in mathematics and medicine was extensive, but he had the weakness to believe and practise judicial astrology. He extended the formula for the solution of cubic equations, which was discovered and communicated to him by the mathematician of Bergamo Tartaglia; this formula is known by the name of Cardan's rule. He wrote on a great variety of subjects, and his works form ten folio volumes. *

Beccaria.—The Marquis Beccaria was a native of Milan. His work on crimes and punishment, published in 1764, acquired great celebrity, and contributed to the abolition of the torture in France and Sweden. The Empress Maria Theresa instituted a professorship of political economy in the university of Milan, and named Beccaria professor.

Agnesi.—The learned lady Maria Gaetana Agnesi, who published an esteemed treatise on algebra and the differential calculus in 1748, resided at Milan.

There is a discourse of Tiraboschi on the literary history of Milan, of which town he himself was a native. †

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* See Tiraboschi, Stor. dell. lett. Ital.

† Hieronymi Tiraboschi Soc. Jes. de Patriæ Historia Oratio Mediolani in Universitate Braydensi habita 1759. See also Philippi Argelati Bononiensis Bibliotheca Scriptorum Mediolanensium 1745.

Library.—The library of Brera is magnificent, containing 180,000 volumes. One of the rooms is appropriated to books printed in the fifteenth century. Amongst these is the Lactantius, printed at the monastery of Subiacho, forty miles from Rome, in 1465, the first or second book printed in Italy.* The Catholicon, a dictionary of mythology, and of technical and scientific terms, in 1468. Faust and Schæffer's Bible, Mayence, 1462. Berlinghieri's Translation of Ptolemy's Geography into Italian verse, 1482, with coloured maps, in which the Indian Ocean is represented as inclosed by land on all sides.

Graduale Carthusianense.—The beautiful manuscript, Graduale Carthusianense, an antiphonarium or choral book, which belonged to the Certosa of Pavia, is on vellum of a large atlas size. The name Graduale arises from the service being sung on the steps of the ambones or choir. † There are twelve volumes, one for each month. The initial letters are ornamented with beautiful miniatures. In one part is a fine group of children, emblematical of the four parts of the world, dancing and rejoicing for the birth of Christ. This work was executed in 1549.

Limners.—There were many miniatori, miniature painters, who exercised the art of illuminating the Officio della B. Virgine, and other church books.

* See page 271.

† Ciampini Vetera Monumenta.



Lazzeruolo, Crataegus Azarolus, p.17, 538 I & 85 II

One of these, Guilio Clovio, who died in 1578, at the age of eighty, is much praised for excellence in his art by Vasari.

Botanic Garden.—The botanic garden, adjoining to the college of Brera, is kept in good order.

Agave.—The Agave Americana does not bear to be kept in the open air at Milan, nor even the Arbutus unedo, or strawberry tree; both these plants succeed in the open air on the Boromean Islands, a more sheltered situation, although half a degree farther north.

Pomegranate.—The pomegranate tree ripens fruit on a wall exposed to the south.

Lazarini.—The Cratægus azarolus,* which produces the fruit called Lazarini, sometimes Azzerola, is engrafted on the common hawthorn.

A drawing of a branch, with fruit, is published by Bauhin, under the name of Mespilus aronia. It is considered to be the αρωνια of Dioscorides.† It is called by Avicenna, Zarur and Alzaror, words which denote a fruit with three seeds. Bauhin says, that the plant was first brought to Naples from Spain; and the Italian name, Lazarola, or Azarola, is formed from the Arabic name Lazur, used in Spain.

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* Persoon, Synopsis Plantar.

† Bauhin Histor. Plantarum.

Matthiole mentions, that in his time it was commonly cultivated at Naples, and still more frequent in Sicily, and that it was beginning to be introduced into the gardens at Rome.

The taste of the fruit is agreeable; it has little juice, being of the consistence of the haw of the hawthorn. The fruit is somewhat larger than a nutmeg. It has the appearance of a very small apple.*

Pyrus Spectabilis.—The Pyrus spectabilis was in blossom in the garden of Brera on the 22d of April, producing a beautiful effect with its large clusters of flowers. This plant scarcely thrives in the open air in the latitude of 56 degrees, in Britain, the shoots of summer being frequently killed by the succeeding winter.

Italian Institute.—The Italian Institute of science and arts, which was formed, during the dominion of the French, on the model of the French Institute, holds its meetings in the college of Brera.

Public Gallery of Pictures.—The public gallery of pictures is in the college of Brera, and contains many valuable pictures. Whilst Milan was the capital of Bonaparte's kingdom of Italy, this collection contained pictures brought from different parts of Circumpadan Italy, which have been restored to their former owners since the fall of his power.

* See page 17, where, instead of Cratægus rubra, read Cratægus azarolus; and page 538.

There are several paintings in fresco, by Bernardino Luini, who flourished in 1521, and was a pupil of Leonardo da Vinci. The mass of plaster on which these paintings are executed has been carefully removed from the walls of old churches, and fixed in wooden frames, so as to be exhibited in the gallery.

Paintings in Fresco.—In painting in fresco, or on the wet plaster, three coats of plaster composed of lime are laid on, one over the other. The thickness of all the three is about half an inch. The exterior coat, which is impregnated with the colours, is finer and smoother than the others. The colours are chiefly mineral colours, and are ground with the lime and water, which is to form the coloured surface of the picture.

The painter applies only a small surface of the finer plaster, sufficient for the representation of a head, or for what he can do in a day; and the line of separation between this piece and the adjoining pieces formed subsequently is seen by looking nearly at the picture.

The outline of the figure is drawn on the wet plaster by a pointed instrument. In the antique paintings on wall, the outline of the figure was drawn in colour with the pencil, and remained covered by the colours after the picture was finished; but a great many of these antique pictures, found at Herculaneum and other places, were not painted on the wet plaster, that is, in fresco, but on the dry plas

ter, and some of them on a surface of white marble; as Winkelmann observes. *

Old Pictures.—Several old pictures anterior to the year 1500. The oldest are in distemper, and on board.

Raphael.—The Marriage of the Virgin, with an octagonal temple, in pleasing perspective, behind the figures in the middle ground, painted by Raphael in 1504, in the old and formal manner of his master Pietro Perugino, and before Raphael had improved his style by visiting Florence, and studying in that city the pictures of Bonarroti, Leonardo da Vinci, and Friar Bartolomeo di San Marco. This picture is mentioned by Vasari in his life of Raphael.

Gentil Bellino.—A large picture of the church of Santa Sophia at Constantinople, with many figures of Venetians, and of men and women in the oriental dress, camels, a camelopardalis by Gentil Bellino.

Santa Sophia.—This view of Santa Sophia resembles the church of Saint Marc at Venice, which probably was copied from Santa Sophia. The cupola of Santa Sophia, however, is much more lofty.

The rival republics of Venice and Genoa disputed the possession of a part of Constantinople. In 1352, the Genoese, after a war in which they had

* Winkelmann, Hist. de l'Art. Lib. IV. chap. 8.

the better of the Venetians and of the Emperor Cantacuzene, obtained from Cantacuzene that the Venetians should be banished from Constantinople. The Genoese then possessed Pera, which awed the city of Constantinople; they had likewise the commerce of the Black Sea, and factories in the Crimea. But this picture was painted after that period by the Venetian painter Gentil Bellino, the brother of Giovanni, who went to Constantinople to paint for the Turkish Emperor about the year 1460. This emperor took pleasure in the works of his pencil, and would have retained Gentil Bellino but for the religious opinions of the Mahometans, which are hostile to images of every kind. Gentil Bellino was the brother of Giovanni Bellino, many of whose pictures are seen at Venice.*

Plaster Casts.—There is a collection of plaster casts of the most esteemed works of sculpture for the use of the students of painting and sculpture. The pictures painted by students which have been judged worthy of prizes are exhibited in one part of the gallery.

School of Engraving.—In another part of the edifice of Brera is the school of engraving, where several artists are employed in engraving on copper-plate. Many of the most celebrated engravings that have been produced in different countries of

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* See page 62.

Europe are hung on the walls; amongst them are some works of Woolet, and the portrait of Louis XV. by the French engraver Balschou. Longhi, the president of this academy of engraving, is a very able engraver.

Ambrosian Library.—The Ambrosian library is named in honour of Saint Ambrose, whose memory is so much celebrated, that Milan has been called the Ambrosian city. The building is not very extensive, nor the apartments spacious. The library was founded in 1600, by Cardinal Frederic Boromeo, bishop of Milan, the disciple of his uncle San Carlo Boromeo.

Cardinal Frederic Boromeo was born in 1560, and died in 1631. He was made cardinal at the age of twenty-seven by Sixtus V. He published many works both in Latin and Italian, but they were never in request. *

Cardinal Boromeo had persons employed to collect books in different countries of Europe and the East. He acquired the remains of the Pinelli library. †

According to the original foundation, there was attached to the library a college of nine men of letters, who were to publish their observations on the branches of knowledge to which they attended, but this part of the institution was not continued.

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* See Tiraboschi, Stor. dell. lett. Ital.

† See Busca, de Statu Bibliothecæ Ambrosiana

Pictures.—An academy of painting also was attached to the library, and the anti-room contains pictures and drawings; amongst which is Raphael's cartoon of the School of Athens, in black chalk. From this cartoon the picture in the stanze of the Vatican was painted. This cartoon is returned after having been in Paris.

The learned Muratori, author of the Antiquitates Italicæ, and other works relating to history and antiquities, was librarian for some years. He afterwards was superintendent of the *Este* library at Modena. *

Manuscripts.---Amongst the manuscripts is a Latin translation of Josephus, on papyrus, written in a running hand.

A manuscript of Pliny of the thirteenth century in black letter.

A book containing sketches by the hand of Leonardo da Vinci. Many of these relate to machines, cannon, and various kinds of artillery.

Petrarch.---A manuscript of Virgil that belonged to Petrarch was in this library; on the first leaf was a note written by Petrarch, concerning the time of his first acquaintance with Laura, and of her death. It is as follows: "Laura, illustrious by her own virtues, and celebrated in my poems, first appeared to my eyes, in my youth, in 1327, on the

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* See page 128, Vol. I.

6th day of April, at matins, in the church of Saint Clare at Avignon. And in the same city, on the same month and day, at the same hour, in the year 1348, this luminary was taken from the light of the world, when I was at Verona ignorant of my loss. The mournful account reached me at Parma, by letters from my Ludovico, (this Ludovico was a natural son of Petrarch, but was not related to Laura,) in the same year, on the morning of the 19th of May. Her chaste and beautiful body was interred in the burying ground of the Franciscans, on the evening of the day on which she died. Her soul, I am confident, returned to heaven from whence it came, as Seneca says of Africanus. I wrote this memorial of the sad event in grief mingled with some pleasure, and placed it here on a leaf that comes often before my eyes, to put me in mind, by the frequent sight of this note, and by considering the shortness of life, that there ought to be nothing now to give me pleasure in this life, and that this main attachment being broken, it is time to quit Babylon, which, by the grace of God, will be easy to one who reflects with courage on the useless cares, the vain hopes and disappointments of past life." *

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* "Laura propriis virtutibus illustris et meis longum celebrata carminibus, primum sub oculis meis apparuit sub primum adolescentiæ meæ tempus anno Domini 1327, die 6

Fable of Pope Joan.—De Brosses mentions some manuscripts in this library which he consulted respecting the female Pope Joan; but he found nothing to prove that such an individual ever existed, and historians now consider the accounts of this female pope as fabulous. *

The perforated chair of antique red marble on which the popes were seated after their election, figured in this story of the female pope. This chair is now

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mensis Aprilis in Ecclesia S. Claræ Avinione hora matutina. Et in eadem civitati eodem mense Aprili, eodem die 6, eadem hora prima anno autem 1348, ab hac luce lux illa subtracta est, cum ego fore tunc Veronæ essem heu fati mei nescius. Rumor autem infelix per litteras Ludovici mei me Parmæ reperit anno eodem mense Majo die 19 mane. Corpus illud castissimum atque pulcherrimum in loco fratrum minorum repositum est eo ipso die mortis ad vesperam. Animam quidem ejus, ut de Africano ait Seneca, in cœlum, unde erat, rediisse persuadeo mihi. Hoc autem ad acerbam rei memoriam amara quadam dulcedine scribere visum est hoc potissimum loco, qui sæpe sub oculos meos redit, ut scilicet nihil esse deberet quod amplius mihi placeat in hac vita, et effracto majori laqueo, tempus esse de Babylone fugiendi, crebra horum inspectione, ac fugacissimæ ætatis æstimatione commonear, quod prævia Dei gratia facile erit præteriti temporis curas supervacuas, spes inanes, et inexpectatos exitus acriter ac viriliter cogitanti." This note is published by Tiraboschi, who considers it to be authentic.

* Voyage en Italie en 1740, par M. de Brosses, premier President du Parlement de Bourgogne.

in the museum of the Vatican.* On the cathedral of Siena there is a series of 170 figures of the popes, from Saint Peter to Hadrian IV.; they were made in the year 1400, and amongst them there was one of the female pope, but it was removed by the Grand Duke of Tuscany at the request of Clement VIII. in the year 1600, and the figure was altered to suit the name of Pope Zacharia, which was affixed to it.

Manuscripts published by Majo.---The learned Angelo Majo observed in this library several manuscripts of the middle ages, on parchment, on which more ancient manuscripts had been formerly written and effaced. He found means to restore these ancient obliterated manuscripts, and has published some of the results of his researches. Amongst them are, Fragments of Six Orations of Cicero, now first published at Milan, 1814; the Orations of Symmachus, Milan, 1815; a part of Dionysius Halicarnassus that was wanting in the printed editions, Milan, 1816; Fragments of Plautus and Terence, Milan, 1815, and some others.

Old Printed Books.—Of books of the fifteenth century I saw the edition of Bocaccio, printed at Milan in 1471. The Ambrosian Missal, Milan, 1475. The first book printed at Milan was in 1469, the Miracoli della Gloriosa Verzine Maria.

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* See page 402, Vol. I.

Cupola by Bramante.—The cupola of the church of Santa Maria delle Grazie is of brick, built under the direction of Bramante.

Bandello, author of Tales written in imitation of Bocaccio, was a monk in the monastery to which this church belonged. He was afterwards made Bishop of Agen by Francis I. of France.

Last Supper by Leonardo da Vinci.—In the dining-hall of the suppressed monastery of Santa Maria delle Grazie is the celebrated picture in fresco of the Last Supper, il Cenacolo, by Leonardo da Vinci. It occupies one end of the hall, and though considerably injured, still produces a great effect. Vasari relates, that Leonardo being teazed by the prior of the monastery to proceed with the picture, painted the likeness of the prior in the figure of Judas.

Leonardo da Vinci was born at Vinci in Tuscany in 1452. He was remarkable for the beauty of his person, bodily strength, and agility. Besides his excellence in painting, he played well on the lute, and made extempore verses; he was curious in mechanics, in anatomy, in chemistry, and in astronomy; and in this latter science he was the first who shewed that the cineritious light on the dark part of the moon is the light reflected from the surface of the earth. He was patronized by Francis I. of France, and died at the court of that prince at Fontainbleau in 1520.

An account of Leonardo da Vinci, and of his works, is published in Vasari's Lives of the Painters.

There are many engravings of this picture, the Cenacolo; one is by Raphael Morghen.

Mosaic.—The French government, during their dominion in Milan, employed Giacomo Raffaelli, an artist of the Roman mosaic school, to make a copy of this picture in mosaic, of the same size as the original. It is about twenty-four feet by twelve.

This mosaic, one of the largest that has appeared, is now finished. It is imbedded on twelve slabs of marble from the lake Maggiore; and these twelve pieces are at this time placed together on tressels in the workshop, in a horizontal position, so that it is necessary to view the picture from an elevated gallery. It occupied the labour of eight or ten men daily during eight years, from the commencement to its completion, and cost L. 7500 Sterling. The Emperor of Austria intends to remove it to Vienna.

Raffaelli, the artist in mosaic, has a collection of some smaller productions of his art for sale. He possesses a rock crystal remarkable for its size; it has the crystallized hexagonal form, and is $5\frac{1}{2}$ feet in circumference, $3\frac{1}{4}$ feet long, and weighs 870 Milanese pounds.

The following observations relate to the mechanical part of the art of mosaic, of which something has been said already at page 517, Vol. I.

Enamel.—The enamel, consisting of glass mixed with metallic colouring matter, is heated for eight days in a glass-house, each colour in a separate pot. The melted enamel is taken out with an iron spoon, and poured on a polished marble placed horizontally; and another flat marble slab is laid upon the surface of the melted enamel, so that the enamel cools into the form of a round cake, of the thickness of 3-10ths of an English inch.

In order to divide the cake into smaller pieces, the cake is placed on a sharp steel anvil, called Tagliulo, which has the edge uppermost, and a stroke of an edged hammer is given on the upper surface of the cake; the cake is thus divided into long parallelopipeds, or prisms, whose base is 3-10ths of an inch square; and these parallelopipeds are again divided across their length by the tagliulo and hammer into pieces of the length of 8-10ths of an inch, to be used in the mosaic pictures. Sometimes the cakes are made thicker, and the pieces larger.

For smaller pictures, the enamel, whilst fused, is drawn into long parallelopipeds, or quadrangular sticks; and these are divided across by the tagliulo and hammer, or by a file; sometimes also these pieces are divided by a saw without teeth, consisting of a copper blade and emery; and the pieces are sometimes polished on a horizontal wheel of lead with emery.

Gilded mosaic is formed by applying the gold

leaf on the hot surface of a brown enamel immediately after the enamel is taken from the furnace; the whole is put into the furnace again for a short time, and when it is taken out the gold is firmly fixed on the surface. In the gilded enamel used in mosaic at Rome there is a thin coat of transparent glass over the gold.

Ancient Enamel.—The ancient Romans, besides the enamel for mosaic, made other works in enamel. Winkelmann mentions ancient tiles of a kind of glass, or enamel, for paving the floors of rooms; and he describes a small picture composed of filaments of enamel of different colours, agglutinated together by fusion, and each transverse section of this gave a picture like that at the extremity.* The antique pastes, or artificial gems, are also products of art allied to enamel.

Some of the ancient mosaics are said to be of coloured stones, but the greatest number are composed of pieces of enamel.

The Cement.—Anciently, the paste in which the pieces of mosaic are imbedded, called in Italy stucco, was composed of one measure of quicklime quenched in water, and three measures of pounded marble; these were made into a mass with water and white of egg, and this was called marmoratum; but this paste hardens too rapidly, so that it is hard

* Winkelmann, Hist. de l'Art. Livre I. chapitre 3

before the workman has time to insert the pieces, and it is injured by damp more readily than the cement made with oil.

The paste now used is composed of one measure of quenched quicklime, three measures of powdered Travertine stone; these are mixed with lintseed oil, and are stirred and worked up every day with a trowel. The mass is at first level on the surface, but afterwards swells up. Each day some oil is added, to prevent the mass from becoming dry and untractable. The mass is ready in a shorter time in warm weather than in cold; in summer the mass is at its perfection in twenty days; this is known from its ceasing to swell, the water that was in the lime having evaporated; the mass is then uniform throughout, like an ointment. In winter, and when the air is moist, it requires a month to bring the paste to perfection.

The wall on which the mosaic is to be applied must have the lime taken off its surface; then furrows an inch deep are formed on the wall, to fix the cement.*

For the same purpose large-headed nails are dri-

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* See Vetera Monumenta in quibus praecipue musiva opera sacrarum profanarumque aedium structura, ac nonnulli antiqui ritus, dissertationibus iconibusque illustrantur, Joannis Ciampini Romani, magistri brevium gratiae. Romae 1690. The eleventh chapter treats of the materials and elements of mosaic pictures.

ven in, and wire is stretched from one nail to another. After this, the wall, thus prepared, is painted over with lintseed oil. Then the cement is laid on to the extent of a surface of as many palms as can be executed before the cement dries. The plasticity and softness of the cement lasts about twenty days; after that the oil exudes, and the lime and Travertine becomes a hard mass. The cement made with lintseed oil is yellow; that made with white of egg is white, and the white cement is considered to be a character for distinguishing the old mosaic from the modern; but some of the modern is also made with white cement.

The pieces of enamel are taken hold of with a forceps, in order to insert them into the cement.

Demetrius Calchondylas.—In the church of Santa Maria della Passione, Trissino erected an inscription in memory of Demetrius Calchondylas, a native of Athens, who came to Italy in 1447, and was employed in teaching Greek in Perugia, in Florence, under the patronage of Lorenzo de' Medici, and in Milan. Calchondylas published a Greek Grammar, and editions of some of the Greek classics; he died in 1511, at the age of eighty-seven.

Trissino was of a noble family of Vicenza, a pupil of Calchondylas, and author of the epic poem, Italia Liberata da' Goti, written in imitation of Homer.

Church of Sant Ambrogio.—The church dedi-

cated to Saint Ambrose, whose liturgy is used in Milan, contains some mosaic of the ninth century, of which drawings are published by Puricelli.* The cloister of the adjoining monastery is by Bramante, of whom also is the vestibule of the church of the Madonna presso San Celso.

Saint Ambrose was distinguished by his energy and uprightness; he was archbishop of Milan from 375 to 397, in the reign of the Emperor Theodosius the Great. He made Theodosius do penance for the massacre of the citizens of Thessalonica. Saint Augustin was converted to Christianity by Saint Ambrose. The Ambrosian mass and ceremonies which are observed by the secular clergy at Milan differ in some respects from the Roman ritual, which is observed by all the other Roman Catholic churches.

Urn.—The urn or ark in the church of Sant Eustorgio de' Predicatori, sculptured by Giovanni Balducci of Pisa in 1338, is cited as a work of merit. The marble portal of the church of Santa Maria di Brera is by the same artist.

Collection of Minerals.—The learned geologist Breyslak, inspector of powder and saltpetre, possesses an extensive and interesting collection of mine-

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* J. P. Puricelli Ambrosianae Mediolani basilicae monumentorum descriptio in Thes. Antiq. et Histor. Ital. cum praefat. Graevii et Burmanni. Tom. IV.

rals, which is rendered instructive by the obliging politeness of the proprietor, and his ingenious observations on the objects that compose it.

There is another cabinet of minerals belonging to Father Pini.

Fossil Bones.—At the Council of Mines is the skeleton of a whale, forty feet in length, found in the earth, at Castel Arquato in the Piacentino, situated on the Lardi, 15 miles south of the Po, and 120 miles from the Adriatic Sea.

Royal Palace.—Frescoes.—Inlaid Floors.—The royal palace is appropriated for the reception of the emperor and king of the Lombardo-Venetian dominions. The apartments were decorated during the dominion of the French. On a ceiling is a painting in fresco, by Appiani, of Napoleon, exalted on a shield. This same subject was stamped on the small silver medals which were thrown amongst the people on the streets of Paris on the day of his coronation; on these medals the shield is supported by a senator and an armed countryman; near the senator is a book of laws, near the representative of the people a plough; the inscription, Le Senat et le Peuple. There is some tapestry after the Windsor Cartoons of Raphael. The floors are inlaid with dark-coloured walnut-tree, cherry-tree, and white coloured hornbeam wood.

Public Walk.—Walk on the Ramparts.—The public walk called Giardino Publico is laid out with

rows of trees; and the walk on the ramparts which goes round the town is planted with alleys of horse-chesnuts, Platanus orientalis, and Acer negundo. This was done by the French, who also formed the walk near the castle, by levelling the ditches and ramparts with which the castle was surrounded.

Place of Arms.—The Place of Arms, Piazza d'Arme, formed by Bonaparte for the purpose of reviews, is an extensive piece of plain ground, in form of a square, each side of which is about 1800 feet. It is near the castle.

Circus.—On one side of the Place of Arms is the Circus, which is an oblong piece of ground, approaching to the form of an ancient Roman circus, but more elliptical, and without the spina in the middle, 700 feet in length, inclosed with a wall twenty feet high, and eight gradine or rows of turf seats all around. On the side next the Place of Arms is the building for the sovereign. The front of this building towards the circus consists of an open portico of eight columns of granite from the lake Maggiore; each column is of one piece, twenty-four feet long. Under this portico are the seats from which the sovereign views the games.

The other side of the building is a saloon, with windows looking on the extensive place of arms. The principal destination of the building was for viewing the troops; the circus was a secondary object, and is little suited to modern games.

Paintings of Bonaparte.—The interior of this saloon is painted in imitation of bas reliefs. Since the fall of the French power the painter has changed Napoleon's head into Jupiter, by the addition of a beard and long hair; and a casque has transformed Josephine into Minerva.

This circus was constructed by order of Bonaparte, and served for foot races, and some trifling horse races. The arena can be laid under water for rowing matches on a small scale; and an exhibition of that kind was given on the birth of the young Napoleon.

Intended Triumphal Arch.—The middle of that side of the piazza d'arme which is adjacent to the side which contains the circus, was intended to have been decorated with a magnificent triumphal arch, under which the avenue leading to the Simplon road was to pass. The arch was designed by Cagnola, a Milanese architect. The basement and four reliefs in marble are executed, but the work was discontinued at the fall of Bonaparte's power, and has not been resumed. The reliefs represent the entrance of Bonaparte into Milan after the battle of Marengo, and some other acts of his.

Ticino Gate.—At the Porta Ticinense the entrance to Milan is through an atrium, or lofty portico, adorned with columns, a handsome modern work by Cagnola.

Porta Nova.—Another modern gate is the Porta

Nova, an arch with Corinthian columns and a lodge on each side for the guard and customhouse officers; the building is after a design of Zanoja, and produces an agreeable effect; it is built of sandstone.

Mode of Building.—Many of the houses in Milan have only a ground floor and first floor. In the central parts of the town the houses are of three or four stories.

Building Materials.—The houses are mostly of brick plastered over. Red granite and grey granite, both from the lake Maggiore, and conglomerate, are used for columns, door-posts, and other ornamental parts of buildings. The granite at Milan is called Migliarolo, or Miarolo. The red granite is brought from Baveno, near the Boromean islands, on the western shore of the lake Maggiore; and the pale red, opaque, but regularly formed crystals of felspath that occur in the granite quarries of Baveno, are well known in mineral cabinets. The grey or whitish granite is brought from Margozzo, on the lake Maggiore. Of the white marble, from the vicinity of the lakes of Como and Maggiore, the cathedral is built. The white marble of the basement of the triumphal arch in the piazza d'arme is from the Simplon road. Sandstone, or arenaceous conglomerate, is used in the Porta Nova. These various kinds of stone are conveyed to Milan by the lake Maggiore, and the great canal which is derived from the Ticino.

Decoration of Rooms.—Rooms are painted with festoons and other ornaments on the plaster walls and ceiling, in distemper.

Floors.—The floors are of flat rectangular tile, sixteen inches long, laid in the herring-bone form, a kind of floor very frequent in different parts of Italy.* The roofs are covered with tile in the Italian manner.

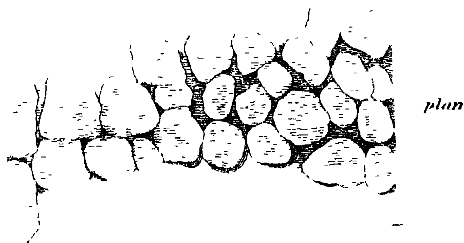
Pavement of Streets.—The pavement of the streets is of small water-worn stones, which form a surface too rough for walking on. There is a flagged pavement of granite on each side of the street without kirb stones; and there are two rows of granite flags in the middle of the street, for the wheels of carriages to run upon; by this means the motion of the carriage is very smooth, and the small pavement prevents the horses from slipping. In the broadest streets, such as the Corso, there is a triple set of these granite railways, so that three carriages may go abreast or in opposite directions.

Milan the Residence of the Emperor Maximian.—Diocletian, and his colleague in the empire. Maximian, were the first emperors who fixed their, residence in time of peace at a distance from Rome. In 303 Diocletian fixed his residence at Nicomedia; Maximian at Milan; and this new capital was em-

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* See page 203.

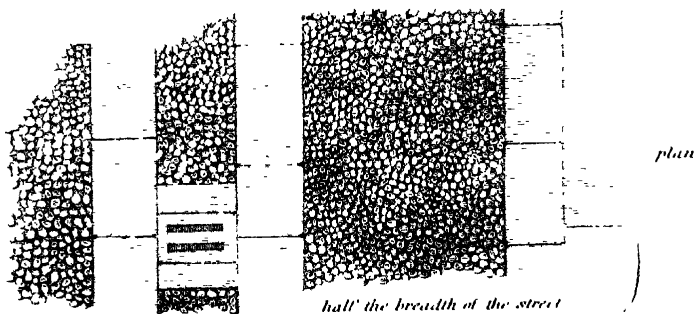
Via Appia near Capo di Bove   page 371 vol I

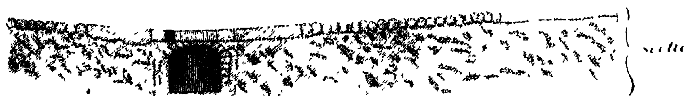


breadth of the road



Pavement of the streets of Milan with wheel paths of granite   page 100 vol II





bellished in consequence, and had a circus, a theatre, a mint, a palace, baths, and porticoes.

Ancient Colonade.—But of these edifices scarcely a vestige remains, and the only piece of ancient Roman architecture now at Milan is a colonade of sixteen fluted Corinthian columns, about twenty-five feet in height, each composed of several pieces of marble. They are called the Columns of San Lorenzo, being in front of the church of San Lorenzo. They appear to be part of the peristyle of a temple. Some authors suppose they were part of a bath, but nothing certain is known, either from history or lapidary inscriptions, with respect to their original destination, or the precise time when they were erected. A view of the columns of San Lorenzo is published in the Thesaurus of Graevius. *

Inscriptions.—Alciati.—At the extremity of the row of columns is a stone with an inscription in honour of the Emperor Lucius Verus. This inscription, which is given by Montfaucon, † does not relate to the building, and did not form part of it. Many ancient inscriptions have been found at Milan; and they were first collected and published by Andrea Alciati, a celebrated professor of jurisprudence. Alciati was a native of Milan, and was professor at Avignon, Bourges, Pavia, and other places. He was the first who applied history, antiquity,

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* Thes. Ant. et Hist. Ital. Tom. II.

† ...ucou, Diarium Italicum.

and other branches of knowledge, to illustrate the study of jurisprudence. He died in 1550.

Hospital for Sick.—The great hospital for the sick is an extensive building. It received its first endowments from Francis Sforza Duke of Milan, in 1456.

This prince reigned sixteen years in Milan, and died in 1466. He afforded protection to the Greek men of letters who took refuge in Italy on the fall of the Greek empire. *

The beds are arranged in spacious halls, one row of beds against each of the walls.

Foundling Hospital.—Near this is the foundling hospital where children are allowed to be deposited. The children are put into the hospital in the evening, through a small wicket, and are sent out to nurse at the expence of the hospital. Similar institutions exist in other parts of Italy and in Paris. This mode of receiving exposed children has long been relinquished in Britain, being justly considered hurtful to the public morals.

Lazaretto.—Without the town is a quadrangle consisting of 360 rooms, built by Ludovico Sforza in 1489, during the prevalence of the plague, for the reception of infected persons; some additions were made by Louis XII. of France. This building was used for the same purpose in the epidemic,

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* See Tiraboschi, Stor. dell. Lett. Ital.

in the time of Saint Charles Boromeo, in the sixteenth century, all infected persons being sent to it. In the plague in the time of Sforza, 50,000 people died at Milan, in the time of Saint Charles 30,000. These buildings have only a ground floor, and form the sides of a great quadrangle 1311 English feet by 1272. There is a portico or open corridor all round that side which looks into the quadrangle.

Mint worked by Water.—La Zecca, the mint. The word Zecca, according to Muratori, is derived from the Arabic, and from Zecca comes Zechino, the name of an Italian gold coin. In the mint at Milan the coining presses, the rolling mill, the turning lathes, two small hammers for forging iron, the amalgamation mill for goldsmiths' sweepings, are all put in motion by water.

The water wheels work by the impulse of the water, and are not overshot.

The machines for coining are well contrived and well executed.

One of the mechanists, Culot, makes delicate balances.

The files used in the mint are made of English steel, the Brescia steel is found not to answer on account of its scaling; the Brescia steel is made at once from the ore, and not by cementation.

Old Dies.—There is a great collection of old d [illegible]; the oldest of these were made to

be struck with a hammer. The mode of coining by the impressing action of the screw was invented afterwards. There is also a collection of poinçons.

The artist engraves the poinçon in relief on steel, and from this poinçon a hollow matrix is struck in softened steel. This matrix is the die, and when tempered it is impressed on the blank piece of silver, in order to form the coin.

Putinati, who resides at Milan, is an able die sinker, and has struck medals with heads of Canova and other artists.

Ancient Coins.—There is a considerable collection of ancient coins at the mint.

Dollars of Maria Theresa.—At this time, April 1818, they are coining convention thalers with the head and inscription of Maria Theresa. These coins are made for the merchants, who send the dollars to Turkey; the dollars of Maria Theresa and Venetian zechins, being the coins that pass most readily amongst the Turks.

Gold Napoleons, with the head of Bonaparte, are also coined for the merchants, who send gold to the mint to be coined. The Austrian government has not yet formed new dies, nor issued a coinage of its own for Milan since they regained possession.

Silver Currency in Milan.—A great part of the silver coin at this time in common circulation in Milan consists of pieces of five francs, two francs, one franc, half franc, coined by Bonaparte as King

of Italy, and of the same value with the French coins of the same denomination; the value of a franc being about tenpence Sterling.

Land-Tax.—The allotment and distribution of the land-tax, in Italian is called Catasto, in France Cadastre, and in the Latin of the middle age Capitastrum, denoting a capitation by which every individual proprietor of land is taxed in proportion to the value of his land. This distribution is effected by exact topographical plans of all the landed estates in the territory; by a list of the proprietors; and by an estimation of the value of each piece of ground, like that in Doomsday Book in England, in the time of William the Conqueror.

According to Lalande, the government of Milan, in 1760, had brought this distribution of the land-tax to a greater perfection than any other European government.

The land-tax is high, and bears a considerable proportion to the rent.

This distribution or catasto is also well regulated in Piemont.

A measurement of every individual district and estate in France, for the use of the cadastre, was begun after the Revolution, and was not yet completed some years ago.

Manufactures.—Weaving of plain silk stuffs of different colours, and also of silk damask, is carried on to some extent in Milan.

There are some manufactories of printed cottons, of stoneware in the English manner, and others.

Woollen broad cloth is manufactured near Como.

Prohibition of Foreign Manufactured Goods.—The Austrian government have recently prohibited the importation of foreign manufactured goods into Milan, and all other parts of their dominions. Before that edict, broad cloth was imported into Milan from England and France, fine cotton stockings from England and Saxony, worsted stockings from Amiens and Augsburg, silk stockings from France and Turin, printed cottons from Saint Gall and other parts of Switzerland.

Pots of Steatite.—Pots for culinary purposes, made in the Valtellina, of the magnesian stone called Lapis ollaris, are sold on the streets of Milan. The stone is formed into these pots on a turning-lathe.

Rain.—The mean annual quantity of rain at Milan is very considerable. According to Lalande, it is thirty-five English inches, whilst the mean annual quantity at Paris is seventeen.

Large Carts.—Goods are conveyed in Lombardy on very large two-wheeled carts. The wheels have broad rims, which were introduced by the French, who borrowed the practice from England. The loading of these great carts is so disposed, that the part behind the axle-tree preponderates a little, so that the shafts do not weigh on the horses' back.

They have a bar that can be pressed against the rim of the wheel, so as to retard the wheel's revolution.

Cheese Dairy.—On the 14th of April, I went to see a large cheese dairy, three miles from Milan, one of the dairies at which that kind of cheese called in commerce Parmesan is made. It is called in Italy Formaggio di grana, because it is commonly used in a granular form, being grated and brought to table to be eaten with soup. Much of this cheese is also made near Lodi and Pavia.

The word Formaggio is from Formaticum, which signifies, in the Latin of the middle ages, cheese prepared in a form. *

The cheese is made in the morning before sunrise.

Copper for heating the Milk.—The morning's milk, and that of the preceding evening, are put into a large brass vessel, five feet in height, narrow at bottom, and widening out like a trumpet to three feet in diameter at top. This vessel is placed over a fire which is sunk in the ground, and the vessel can be removed from the fire by a crane.

Runnet.—Saffron.—When the milk is heated, runnet, in form of paste, is put in; and a little saffron, to give the cheese the yellow colour. *

Broad Hoop.—Cheese not Pressed.—When the

* Muratori, Antiquitat. Italic. Dissert. XLI.

coagulation has taken place, the copper is taken off the fire; the curd is taken out in a cloth, and put within a broad wooden hoop, the sides of which are as high as the cheese is intended to be. This hoop can be straitened by means of a rope. A board is placed on the top of the cheese, and a small weight on the board. The cheese is not put into a press.

Salting of the Cheese.—After this the cheese is taken to the salting room, and two cheeses are placed together, one above the other, with broad hoops tightened round them. Much salt is laid on the top of the uppermost cheese; the salt dissolves, and the brine filters through the cheeses.

Beating.—The cheeses are shifted from one place to another all along the benches of the salting room, and are beaten with a flat piece of wood cut with straight lined furrows intersecting each other.

The cheese is next taken to the magazine, where each cheese is placed on a shelf.

Outside is Dyed.—The sides of the cheese are painted with a mixture of litmus, otherwise called tournesol, and oil, to give them the purple colour. The tournesol is a plant collected in the south of France.

The cheeses are set on the shelf in the order in which they were made, and the cheeses of each month are placed together.

October and May the best.—Those of the month of October and of May are the best, and bear the

highest price. The best cheeses can be kept longest, and are improved by keeping for some years.

Five Years Old Cheese.—There was an October cheese which had been kept five years, and was to be sent to the emperor.

Small Cheeses.—After the great cheese is made, the liquid in the copper is again heated over the fire, and curd is collected from it, to make small cheeses called Mascarpa.

Eighty Cows.—The number of cows kept for making cheese in this dairy is eighty. They are always in the house in winter, and at this season of the year. They are fed upon grass all the year, except perhaps in December. The house in which they are kept is not above nine feet high to the ceiling. They are not kept very clean. In summer they go out to the field to feed during the day.

The Cows from Switzerland.—The cows are of a dark colour, and are brought from Switzerland, which is found more profitable than rearing them in this country. The bull is also Swiss, and fourteen months old.

It is estimated that 2000 head of cattle pass the Mount Saint Gotthard every year, coming from Switzerland into Italy.* Considerable fairs for the sale of Swiss cattle are held at Lugano.

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* Lettres sur l'Agriculture de l'Italie en 1812 et 1813; par de Châteauvieux.

Milk.—The evening's milk is put in flat copper vessels, three feet in diameter, in order to collect the cream.

Ice.—There is an ice-house at the dairy, for the purpose of supplying ice for cooling the cream which is put into the churn. This they find facilitates the making of butter at certain seasons of the year.

This Dairy visited by the Emperor.—In the farm-yard is an inscription commemorating the visit paid to this dairy by the Austrian emperor and the archdukes, two years ago.

Theatre della Scala.—In the Piazza della Scala there was formerly a church, founded by Regina della Scala, wife of Barnabè Visconti; she was of the family of the Scaligers, Lords of Verona. From this church the piazza and the theatre derive their name.

The Theatre della Scala, constructed in 1778, is large and handsome. This, and the theatre of San Carlo at Naples, are the two finest in Italy. Musical operas and ballets are performed at the Theatre della Scala. Vigano, the composer of the ballets, is considered to excel in that art.

Teatro Re.—At the Teatro Re, a smaller theatre, comedies are performed.

Marionetti.—The personages at Girolamo's theatre are puppets. The piece was entitled Deucalion and Pyrrha, or the General Deluge.—Deucalion,

Pyrrha, Prometheus, Time, the most ancient of the gods, Jupiter, Minerva, the Fates, are all grave and heroic characters; but the life of the play is a kind of Sancho Panza, Girolamo, the butler of Deucalion, a good-humoured gormandizing buffoon, dressed in livery, with a gold-laced hat, and speaking the Piedmontese dialect, which is the native language of the conductor of the play. Prometheus is punished with eternal remorse for having misapplied the celestial fire, in giving life to a being so perverse, restless, and incorrigible as man. He is sent to announce to Deucalion and Pyrrha that the gods have decreed the destruction of the human race by a deluge, and that Deucalion and Pyrrha alone are to be saved. They intercede for Girolamo, but without effect. The deluge comes; and Girolamo, who had filled his pockets with bottles of wine and sausages, is swallowed up by the waves. After the waters have subsided, Deucalion and Pyrrha repair to the temple of Nemesis, and, obeying the voice of the oracle, they throw the stones, from one of which the lamented Girolamo immediately springs up, to the great joy of his master and the audience; Jupiter, Minerva, and the Fates, having decided, that, even in the regenerated state of mortals, and the golden age, there must be a Girolamo to make the people laugh.

Football.—The game of football, played with an inflated bladder, and called Pallone, is common at

Milan, Bologna, Cesena, and in other parts of Lombardy.

La Mora.—The game of La Mora is played by the common people on the streets of Milan, as at Rome and other parts of Italy. It is noisy, and is forbidden at night. In this game, della mora, each of the two players throws out a number of his fingers, and calls a number; and he that calls the number expressing the sum of the number of fingers thrown out by both, gains. It is supposed to be the same as what was called by the ancient Romans Micare Digitis. At Modena this game is called Giocare all Amore; in France it is called La Mourre; in Spain, Amorre. Muratori thinks that the name Mora may have originated from the game having been used by the Arabs or Moors.

Dialect.—In the dialect spoken by the common people at Milan, Pavia, Como, and the lake Maggiore, the vowels at the end of words are not pronounced. For Milano, they say Milann, for Vino, Vinn, for Mano, Mann. Non ce lase casca migha in tentazion, Let us not fall into temptation.

There is a Vocabulary of the Milanese dialect published a few years ago.*

Newspapers.—A daily newspaper, the Gazetta di Milano, is published at Milan, not quite so meagre as the other Italian newspapers, with a

* Cherubini, Vocabulario Italiano Milanese, Milano.

feuilleton or appendix for literary subjects, like the Parisian newspapers. It is of the same size with the French, being about half the size of an English newspaper. The other newspapers that circulate in Milan are the Gazetta di Lugano, published in the Swiss territory; the Gazetta Piemontese, published at Turin; and the Gazette of Genoa.

Literary Journal.—There is a literary journal published at Milan; the contributors to which are Breyslak, Acerbi, and others. A journal of chemistry is published at Pavia by Brugnatelli.

Printing.—Printing of books is carried on to a considerable extent at Milan.

Echo.—At la Simonetta, a large country house a mile from Milan, is a remarkable echo. The building occupies three sides of a rectangle; the distance between the opposite walls is about 110 feet; the windows on the east side of the rectangle are built up. If a sound be uttered from the window on the second floor of the opposite or west side, the sound is repeated a great many times, a dozen times may easily be counted, and sixty or more repetitions of the report of a pistol may be heard.

Fever.—This building, which belonged to the family of la Simonetta, was employed a year ago to receive patients labouring under a fever that was then prevalent; but happily there is now no longer

occasion for applying it to this purpose, the epidemic having ceased.

View.—From la Simonetta is a fine view of the country, with the chain of the Alps, and to the south the Apennines.

Monza.—Ten English miles north of Milan is Monza, named in Latin of a middle age Modoetia and Maguntia, where there is a palace of the emperor and king, formerly inhabited by Eugene Beauharnois, Viceroy of Italy in Bonaparte's reign. The church of Saint John the Baptist at Monza is a fine monument of the architecture of the middle age, and was built in 1380.

The Iron Crown.—In the treasure were kept the jewels of Theodolinda, Queen of Lombardy, who first founded and endowed the church, and the crown called the Iron Crown. This crown is a broad hoop of gold, adorned externally with enamel and precious stones. It is 18$\frac{1}{10}$th English inches in circumference.* Within the golden hoop is fixed a thin hoop of iron, a quarter of an inch in breadth, and from this the crown has its name.

It was said that Theodolinda, Queen of Lombardy, received the crown from Pope Gregory I., called the Great, but Muratori shews that the crown is not of such antiquity. It was taken to Bologna to crown the Emperor Charles V., and it was not

* 2$\frac{1}{12}$ths Roman palms; Fontanini de Cor. ferr.

till after his coronation that the iron rim was reported to be made of the nail of the cross. The story was founded upon the ancient traditions respecting the crown or helmet of Constantine. *

Saint Ambrose relates, in his sermon on the death of Theodosius, that Saint Helena, the mother of Constantine, sought for and found the four nails with which Christ was crucified, and that she caused one of them to be formed into a diadem set with gems, itself a more precious gem, and another to be made into the bit of a bridle, and sent them to her son Constantine. † Other authors, contemporary with Saint Ambrose, state, that the nail was made to form a part of the helmet of Constantine, that he might thereby be protected from danger in battle.

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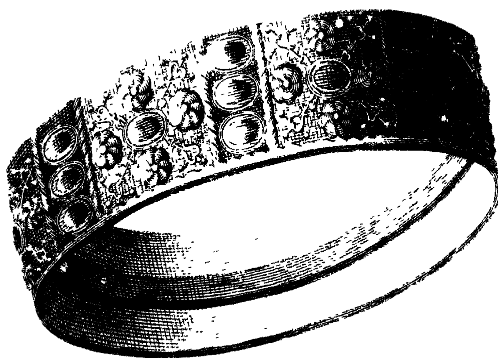
* Ludovici Antonii Muratorii de corona ferrea commentarius, in Thes. Antiq. et Histor. Ital. Graev. et Burmann. Tom. IV.

† "Quaesivit Helena Clavos quibus crucifixus est Dominus, et invenit. Misit itaque filio suo Constantino diadema gemmis insignitum, quas pretiosior, ferro innexas crucis redemtionis divinae gemma connecteret. Misit et fraenum. Utroque usus est Constantinus, et fidem transmisit ad posteros reges. Sapienter Helena quae crucem in capite regum locavit, ut Crux Christi in Regibus adoretur. Bonus itaque clavus Romani Imperii, qui totum regit orbem, ac vestit principum frontem." Sanct. Ambros. in Oratione de Obitu Theodosii, num. 47.

Coronations at Monza.—Some of the Lombard kings of Italy held their residence at Pavia, others at Milan, but Muratori shews that none of them were crowned at Monza. Neither was Charlemagne, and the first coronation that took place at Monza was that of the Emperor Otho III. in 995. The German Emperors were crowned three times; once at Aix la Chapelle; once with the royal crown of Lombardy from the hand of the Archbishop of Milan; the ceremony was performed sometimes at Monza and Pavia, but most frequently in the church of Saint Ambrose at Milan. Their third coronation was with the imperial crown of the Roman empire, which was conferred at Rome by the Pope.

Order of the Corona Ferrea.—Bonaparte gave the name of the order of the Iron Crown to the order of knighthood which he established for his Italian subjects. The order of the Legion of Honour was the chief of his three orders; the third, which he called the order of Reunion, was instituted for his Dutch subjects. These orders were instituted on the principle of abjuring feudal customs; but, when Bonaparte had got his court established in a splendid style, he made his knights hereditary, allowing the dignity to descend to heirs, when the holder could form a majorat, or entail on his heirs a revenue specified by law. He made his dukes, counts, and barons, hereditary in the same

XXIX



Iron crown of Monza vol II p 120

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CHAPTER IX.

Pavia.—The Certosa.—Como. The Lake of Como. The Lake Maggiore. The Boromean Islands. The Ticino and the Great Canal.—Milan to Turin. Turin. Turin to Chambery. Susa. Montcenis. Chambery. Geneva. Lyons. Dijon. Fontainbleau. Paris.

Pavia.—Pavia is twenty English miles from Milan. I went by land, but there is also a passage-boat that goes on the canal.

Canal to Pavia.—The canal reaches from Milan to Pavia, and the continuation of about a mile long with locks, is now nearly terminated, to complete its junction with the Ticino near Pavia.

Rice Grounds.—Between Milan and Pavia, the country is fertile and well cultivated. Water is conducted in small canals between the fields, for the purpose of irrigation, and a good many fields are now laid under water for rice.

By irrigating grass fields, the farmers are enabled to cut the grass several times in the year.

Near Pavia, I saw rye in ear now on the 15th of

April; flax of a good quality is cultivated near Pavia.

Leguminous Plants.—Near Pavia, and in other parts of Circumpadan Italy, several plants of the leguminous tribe are cultivated, which are not used in Britain, because they require a warmer temperature; the seeds of these plants are used as food by the people, and also to feed horses and poultry. Among these leguminous plants are two or three kinds of dolichos, called in Italian fagiuoli, from the Latin phaseolus, which resemble a small kidney bean; the Ervum lens or lentil, which is also very commonly used as food in Paris; the Cicer arietinum, called in the south of France Pois chiche, produces a saline exudation from the stalks, at the summer solstice, which is used as a remedy in cutaneous diseases; the blue flowered lupine is sown, and when the lupines have grown to a certain height, they are ploughed down to fertilize the ground.

The ancient name of Pavia is Ticinum, from the name of the river on which it is situated. Afterwards, in the reign of the Lombards, it was called Papia.

Pavia the residence of the Lombards.—When Belisarius had taken Ravenna and the greatest part of Italy from the Goths, they retired to Pavia, and gained strength under Totila in 541. Pavia was afterwards taken by Alboin king of the Lombards about 570, and became the residence of the Lom-

bard kings.* From these conquerors Circumpadan Italy, that great plain whose western extremity is at the junction of the Alps and Apennines, and which is bordered by these two ridges of mountains, and conveys their waters to the sea by the Po, took the name of Lombardy. The kingdom of the Lombards was overthrown in 774 by Charlemagne. In 1359, Galeazzo Visconti Duke of Milan made himself master of Pavia. After the death of the last Duke of Milan, Pavia, together with Milan, was possessed by the Spanish branch of the house of Austria, and it now forms part of the Lombardo-Venetian kingdom, belonging to the house of Austria.

Battle of Pavia.—The battle of Pavia, in which Francis I. King of France was taken prisoner by the forces of Charles V. was fought in 1525, at a short distance from the town.

University.—The buildings of the university were erected in the fifteenth century by Ludovico Sforza, Duke of Milan, surnamed il Moro.

Ludovico Sforza il Moro, Duke of Milan.—Ludovico Sforza il Moro became Duke of Milan in 1494. He invited Charles VIII. of France to enter Italy, and conquer the kingdom of Naples, which Charles effected in 1495. But Ludovico and the other princes of Italy, having become afraid of the power of Charles, formed a league

* See Memorie del regno de' Longobardi in Italia, di Bernardino Zanetti, Venezia, 1753.

against him; on hearing of which, Charles left Naples, and retreated into France, where he died in 1498, at the age of 27. Louis XII. of France, the successor of Charles, took possession of Milan, and Ludovico died a prisoner in France.

Ludovico was a patron of artists, and of men of learning. He called Bramante and Leonardo da Vinci to Milan. He promoted the university of Pavia, opened schools for different branches of science at Milan, and brought to that city several eminent professors, Demetrius Chalcondylas, Merula, Minuziano, and others. *

Library.—The university possesses a collection of objects of natural history and a library.

In the fifteenth century, Pavia possessed a considerable collection of manuscripts, formed by the Dukes of Milan. But in the year 1500, the library became the prey of Louis XII. who removed the books to France, as Charles VIII. had done some years before, with the library collected by Lorenzo de' Medici at Florence, and with the library at Naples. †

There is a good collection of philosophical instruments, and a handsome semicircular room for the lectures on natural philosophy.

Volta.—The eminent natural philosopher Volta,

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* See Tiraboschi, Stor. dell. Lett. Ital.

† See Catalogue des livres de la Bibliotheque Royale de Paris and Muratori, Script. Rer. Italic. Vol. XIX

who was the first to shew the identity of galvanism with electricity, formerly gave lectures on natural philosophy at this university. On account of his advanced age he has ceased to lecture, but still resides at Pavia, with the title of emeritus professor, and frequently visits the lecture room.

Scarpa.—The celebrated anatomist Scarpa is also an emeritus professor, and resides at Pavia.

Models.—The university possesses an instructive collection of models of canal lock-basins, called in Italian conche, and other objects belonging to the science of the hydraulic engineer. This collection was formed under the direction of the learned Brunacci, professor of the higher branches of mathematics, who lectures on engineering, and illustrates his lectures by conducting the students to the most remarkable works on the navigable canals, and the canals for watering the fields near Pavia.

Number of Students.—The number of students at the university is 850.

Collegio Boromeo.—The Boromean college is a handsome building by Pellegrini, at some distance from the university. It is appropriated to the residence of a certain number of students. The hall is adorned with pictures of the procession of the nail of the cross during the plague at Milan, and other acts of San Carlo Boromeo, painted in fresco by Zuccari in 1604. The emblem of San Carlo, affixed on his different institutions, is the word Humilitas

in Gothic letters, and interlaced with a crown over it, denoting that the virtue of humility adds lustre to a princely station; coronatum ornat humilitas.

Botanic Garden.—The botanic garden is neatly kept, with hedges of Thuya orientalis three feet high, by the side of the walks. The Bignonia capreolata is in the open air climbing and covering a wall. The date palm and the Chamærops humilis require to be kept in the green house.

Bridge over the Ticino.—At the end of the town is the bridge over the Ticino; the road over the bridge is covered with a roof. The bridge is a work of considerable magnitude, and was begun in 1351. Five of the arches were built in a year, and the bridge was completed after Galeazzo Visconti Duke of Milan got the sovereignty of Pavia, which happened in 1359. Muratori mentions an inscription on the bridge, in which the city is called a second Rome.* This inscription, from the form of the letters, is considered to be of the 1400; some suppose that it was brought from Milan, or copied from one that related to Milan,

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* Quisquis huc intrat deflexo poplite dicat,
Dic prope qui transis, qui portae limina tangis;
Roma secunda vale, mundi caput imperiale,
Tu bello Thebas, tu sensu vincis Athenas,
Te metuunt gentes, tibi flectunt colla potentes.

placed on the Porta Romana of that city, and the inscription, which calls the city a second Rome, is more applicable to Milan. The Leonine verse, in which it is written, has its name from Leo, an author of the time of Philip le Bel.

Castle.—Towers.—The castle of Pavia is a brick building of the middle ages, with pointed-arched windows. There are in the town several slender brick towers of the middle ages, like the Garisenda and Asinelli towers at Bologna, but not so high. The number of towers was formerly considerable, and Pavia was called Turrita. Benjamin of Tudela, a Jew, who published an account of his travels in the twelfth century, makes the number of towers in Pavia 10,000, a very forest of towers; this number, which is perhaps inserted by the person who translated the work from the Hebrew, is evidently an exaggeration.

Muratori thinks that the practice of building private towers began in the tenth century, but prevailed chiefly after the year 1000; when some towns became free, and the nobles acquired great power; to have a tower was a proof of nobility and eminence. In their intestine wars, the citizens fought from these towers.

Laws were made to restrain the building of towers. Muratori mentions a law in Pistoja, by which it was ordained that no one should build a tower higher than the other towers.

In 1228, at Verona, a law was made, forbidding the building of any more towers; ut non fiat turris de novo, neque casaturris, neque belfredum aut bertisca, neque aliud ædificium, quod ad munitionem pertineat. *

Boethius.—Boethius was confined in a tower at Pavia, and whilst under sentence of death there, he wrote his celebrated Treatise de Consolatione Philosophiæ, which was translated into Anglo Saxon by Alfred.

Theodoric tarnished the glory and justice with which he had reigned, by the execution of Boethius and Symmachus, the father-in-law of Boethius. Remorse for their death tormented the mind of Theodoric, and he himself died soon after at Ravenna in 520.

Anicius Manlius Severinus Boethius was of the Anician family, at that time the most distinguished in Rome. Theodoric was led to imagine, that Boethius had conspired to restore the liberty of Rome, and without allowing Boethius to justify himself, ordered him to be confined in a tower at Pavia, and had sentence of death pronounced against him by the Roman Senate. The sentence was executed between Pavia and Marignano. Boethius was born in 470. †

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* Muratori, Ant. Ital. Diss. 26. De militia saeculorum rudium in Italia.

† See Tiraboschi, Stor. dell. Lett. Ital.

Bones of Saint Augustine.—The Augustine monks of Pavia discovered some bones in 1695, which they maintained to be the bones of Saint Augustine. These bones are still kept in a sculptured ark or urn, a work of 1370. The remains of this celebrated father, author of the Confessions, and the book on the City of God, were removed from his bishopric of Hippo in Africa, now called Bona, by the African bishops that were banished by the Arians; the bishops carried the relics to Sardinia, and Luitprand, King of the Lombards, is said to have transferred them from Sardinia to Pavia in 721.

Certosa.—Five miles from Pavia is the Carthusian monastery, the Certosa, which was one of the richest and most splendid monasteries in Europe; but as we learn from history that all states, communities, and families, have a fatal limit to their duration, in whatever way the founders may have provided for their perpetuity, so this monastic establishment came to an end, * and was suppressed in 1782 by Joseph II. who took possession of the estates, said to yield an annual revenue of L. 30,000 Sterling. The monks were 26 in number, and each received an annuity of L. 80 from Joseph when the monastery was suppressed. The inhabitants of the monastery now are only a few mendicant friars.

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* Immortale nihil mundi compage tenetur;
Non urbes non regna hominum, non aurea Roma,
Non mare non tellus.

Gian Galeazzo Visconti.—The Certosa was founded about 1390, by Gian Galeazzo Visconti, Duke of Milan, in whose reign the Cathedral of Milan was begun, and his tomb is in the church of the Certosa.

The commencement of the dominion of the Visconti family in Milan was in 1311, when Matteo Visconti having got the better of the opposite faction, governed first with the title of Imperial Vicegerent, and afterwards with that of Lord.

Gian Galeazzo Visconti's dominions were widely extended. He conquered Verona and Vicenza from the Scaligers, and many other principalities. At his death in 1402, he left to his eldest son, Milan, Cremona, Como, Lodi, Placentia, Parma, Reggio, Bergamo, Brescia, Siena, Perugia, Bologna; to his second son, Pavia, Novarra, Vercelli, Tortona, Alessandria, Verona, Vicenza, Feltre, Belluno, Bassano; to another son, Pisa and Crema. *

The exterior of the church is in the round-arched style, with small columns. It is built chiefly of brick, with some marble, gneiss, and other stones from the Lake Maggiore.

The interior is adorned with lofty grouped columns and pointed arches. It is a copy of the interior of the Cathedral of Milan. There are some old fresco paintings, and a copy of Agrati's statue

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* Tiraboschi, Stor. dell. Lett. Ital.

of Saint Bartholomew. In a chapel is an altar piece with two shutters, composed of many bas reliefs, representing scripture histories cut in tooth of Narwal. This altar piece, by its form and workmanship, resembles the diptychs, which were tables of ivory carved with ornamental figures, and folding like the boards of a book. They were used in the old churches to contain a list of the deceased bishops of the church.* The ceiling, painted in fresco with ultramarine, and gilded stars, suffers from damp, the lead covering of the roof having been taken by the French, and its place supplied with tile.

Cloister.—The cloister is a square, surrounded by a covered walk, with open arcades, and 26 small houses, with a little garden to each. Each of these houses was inhabited by one Carthusian; they did not live together in the same building, as most of the other monastic orders did. The cloister is ornamented with small statues of burnt brick earth, which have stood the weather without injury.

Forasteria.—The Forasteria is a considerable building, which was appropriated to the reception of strangers.

Saint Bruno.—The Carthusian order was founded by Saint Bruno, who built the great Carthusian house la Grande Chartreuse, near Grenoble, in Dauphiny. The conversion and acts of Saint Bruno

* Maffei, Verona Illustr. Par. Prim. p. 208.

are represented in a celebrated set of pictures by Le Sueur, formerly in the cloister of the Chartreuse, at Paris, and now, in 1818, in the Gallery of the Louvre.

On the 17th of April I returned to Milan.

Milan to Como.—On the 19th of April I went to Como, 25 miles from Milan.

Rape-seed.—Fields of rape-seed, ravetone, are now in flower. After the rape-seed is reaped, which is in May, Indian corn is sown on the same ground.

Peach Trees.—There are many peach trees in the fields, which are already going out of blossom.

Mombello.—Some miles from Milan, on the left of the road, is Mombello, a large country-house, in which Bonaparte had his head-quarters in the campaigns of Italy, in 1799, before the battle of Marengo. It formerly belonged to the Grivelli family.

Monastery.—Afterwards on the right is a large building, formerly a monastery, and now the seat of M. Mounier, a French army contractor.

Mountains.—Before coming to Como, the level plain ceases, and small elevations begin. At Como is the commencement of the mountains.

Manufactory.—Near Como is a considerable manufactory of woollen broad cloth.

Como.—Como is situated at the southern extremity of the lake, and appears to have about 10,000 inhabitants. It was anciently called Comum. Hav-

ing been destroyed by the inhabitants of the adjacent mountains, it was rebuilt by the Romans 86 years before Christ under Pompeius Strabo, the father of the great Pompey, * and was afterwards called Novum Comum, and the inhabitants Novocomenses. In the twelfth and thirteenth century, Milan carried on war against Como. In 1288 Rusca, of a powerful family of the town, acquired the sovereignty. The Vitani family were the rivals and opponents of the Rusca, and this rivality occasioned many sanguinary contests. In 1338, Azzo Visconti, sovereign of Milan, got possession of Como, and since that time it has continued under the dominion of Milan.

Theatre.—A handsome theatre, and a riding-house for exhibiting feats of horsemanship, was built by the inhabitants in 1816.

Pliny the younger was born at Como in the year 62.

Near the town, and by the side of the lake, is the house of Paulus Jovius, which formerly contained his library and collection of curiosities.

Paulus Jovius.—Paulus Jovius was bishop of Como, which was also the place of his birth. He lived at Rome, and was patronised by Leo X. and the popes who succeeded. He died in 1552, and there is a statue and an inscription to his memory in the church of San Lorenzo at Florence.

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* Strabo. Geog. lib. 5.

His History.—His history, written in Latin, comprehends an account of the events in Italy, and in the other parts of the world, from the invasion of Naples by Charles VIII. of France to 1547. He is accused of venality, and of having accepted valuable presents from those who wished to be favourably treated in his history. He likewise published a work on the natural history of fishes.

Museum.—His collection of curiosities was much admired. It contained an emerald sent him by Ferdinand Cortes, and other valuable presents, the price of his historical eulogies; also a collection of portraits of eminent men of that time. *

Lake.—The lake of Como, anciently called Lacus Larius, is thirty miles in length. It has a winding direction. The breadth near Como is an English mile; farther up, and at the broadest, it is two miles. † Near the town, there are several villas on the edge of the lake belonging to inhabitants of Milan, who resort thither in September and October.

Villa of the Princess of Wales.—To see the lake we proceed in a boat. Two miles and a half up, and near the water's edge, on the west bank of the lake,

* See Tiraboschi, Stor. dell. Lett. Ital.

† There is a description of the Lake of Como by Paulus Jovius, and one of Como and of the lake by his brother Benedict Jovius; both published in the third tome of the Thesaurus Ant. et Hist. Italiae, collectus cura J. G. Graevii, 1704.

is the villa belonging to the Princess of Wales, bought from General Pino, and now (1818) for sale. The house presents a front of considerable size. The ground attached to the villa is of small extent. A road has been made at the expence of the Princess along the side of the lake from the villa to Como. Further up the lake the hills on each side come steep to the water's edge, and the sides of the hills are adorned with many little villages, olive plantations, villas, and here and there a cypress.

Vineyards.—Vineyards are seen in different places on terraces formed on the side of the hill.

Cellars.—There are cellars at various places in the rock for wine, belonging to innkeepers and wine dealers at Como. These cellars are near the vines, and the proprietors take the wine to Como in boats as occasion requires.

Mild Temperature.—The villa Tanzi, on the east side of the lake, is inhabited by an English family, for the benefit of the mild climate and sheltered situation, which are favourable in consumptive cases. Some other English families live in the neighbourhood.

Orange Trees.—The orange and lemon trees are in fruit on the terraces of gardens by the side of the lake, and are protected from the weather by a roof of tile placed over them.

Snow.—On the 19th of April, snow is seen on the mountains only three or four miles distant from the place where olive trees are growing.

The water is deep in the middle, and deepens pretty abruptly from the edge.

Fullest in Summer.—British Lakes in Spring.—In summer the water of the lake is higher than at other seasons, on account of the melting of the snow. Loch Lomond and other lakes in Scotland not being fed by high snowy mountains, are fullest in winter and spring.

Plincana.—Having followed the gently winding course of the lake for five English miles, we arrived at the villa called the Plineana, seated on the east side of the lake at the foot of a precipice, over which a stream of water falls, from a height of 200 feet or more. Part of the stream runs under the house.

Ebbing Spring.—Besides the water-fall, there is a spring issuing from a cavern in the rock, about twenty feet above the level of the lake. This spring ebbs and flows about three inches in height two or three times a-day. Pliny the younger has described this ebbing and flowing spring,* and conceives that the water is contained in a cavity, shaped like a long necked flask, with the neck downwards, so that the air rising gradually in bubbles through the neck, produces an irregular flow of water.

In Pliny's time, a small dining-room, cœnatiuncula, was built over the ebbing spring.

Villa.—The present villa is handsome, and is fre-

* Plin. Epist IV. 30

quented by the proprietors in the hot weather, when it is a most agreeable retreat, being exposed to the west, and cooled by the water-fall and the shade of trees, which cover the abrupt side of the hill above the house.

Chesnuts.—Chesnut trees are cultivated on these hills; the common small chesnuts are called Castagne, the larger kinds, called Maroni, are propagated by inoculation.

Polygala.—Beautiful tufts of the Polygala chamaebuxus, now in flower, adorn the rocks at the Plineana.

Strata.—The rock at the Plineana and by the side of the lake downwards to Como is in strata, and appears to be transition limestone. In some places the strata are thin, and are quarried for the purpose of covering the roofs of houses.

The lake of Como is 30 English miles in length, including the lake of Chiavenna at the upper end, which forms an appendage of five miles long.

The Adda coming from the east flows into the upper end of the lake. The Adda issues again from the southern extremity of the east branch of the lake at Lecco, and the canal called Naviglio Martesana forms a communication between Milan and Cassano on the Adda.

Eastern Branch.—Wire Manufactory.—Glass.—Twelve miles above the Plineana the eastern branch of the lake called the Lake of Lecco, goes off and ex-

tends to Lecco, where there is a manufactory of iron wire. Breyslak mentions a glasshouse on the lake of Como near Varenna, and on the lake Maggiore a glasshouse where glass is made from trap.* Many of the hawkers of barometers that travel in Britain, and other parts of Europe, are from the lake of Como. They learn the art by making thermometers, which are much used in the north of Italy in rearing silk-worms. These silk-worm thermometers are marked at 19 of Reaumur, (75 Fahrenheit,) prima levata, at 18 Reaumur, (73 Fahrenheit,) seconda levata, at 17° terza levata, at 16° quarta levata.

Sixteen English miles up the lake from the Plineana, and on the eastern shore, is Bellano, the birth-place of Bodoni, which is visited for its wild scenery.

Maseno.—Fifteen miles above the head of the lake of Como in the Val di Maseno, are the natural warm baths of Maseno.

From Chiavenna, at the head of the lake, there is a footpath over the Splugen mountain, and, descending along the upper valley of the Rhine to Coire or Chur, the Curia Rhaetorum of the Romans. The distance from Chiavenna to Splugen in the valley of the Rhine is 18 English miles.

From the Plineana we returned through the beautiful windings of the lake to Como.

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* Introduzione alla Geologia, di Scipione Breislak.

Como to the Lake Maggiore.—Strata.—From Como to Varese and Laveno the rocks are calcareous. Some conglomerate is seen near Como.

Meadows.—The road is over hill and dale. In some of the hollows are green irrigated meadows with a small gravelly river winding through them, and planted with poplars.

Mulberry Trees.—White mulberry trees, here called Moroni, are abundant, and the country people are now employed in pruning them, which they do with much care. They use a folding ladder, which, having two branches, supports itself, and is not leant against the tree.

Varese.--The small town of Varese was crowded by a fair. Three miles from Varese, on the top of a hill, is the church of Madonna del Monte, celebrated amongst Catholics for its sanctity. On the way up are the chapels of the stations of the Via Crucis.* From the Madonna del Monte, Milan, as I was informed, can be distinguished in the plain by means of a glass; it is 40 English miles distant. A kind of mushroom of the Morell species is sold in the market at Varese, and called Sponginor.

Lugano.—Twenty miles to the north of this road is Lugano, which belongs to Switzerland. The Italian bailiwicks of Lugano, Locarno, Mendrisio, Bellinzona, Reviera, the Val Blegno, and Val

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* See page 338.

Maggia, situated on the southern declivity of the Alps, at the head of the lake Maggiore, and on the shores of the lake of Lugano, were ceded to the Swiss cantons in 1500 and 1512 by Louis XII. of France, after he had made himself master of the dutchy of Milan, and by Maximilian Sforza Duke of Milan. The inhabitants are Roman Catholics, Saint Charles Boromeo having exerted himself to check the progress of the Protestant preachers in these valleys.

Lugano is a place of trade for the produce of Switzerland. There are large fairs at Lugano for the sale of Swiss cattle, which are brought over the mount St Gotthard, and are used in the dairies of the dutchy of Milan. A newspaper in Italian, La Gazetta di Lugano, is published at Lugano, and circulates in different parts of Italy.

The water from the lake of Lugano flows into the lake Maggiore.

The passage over the Alps by the mount Saint Gotthard comes from the lake of Lucern to Bellinzona and Lugano. The road in one place passes through a perforation in the rock of 80 paces in length. This road passes along the Val Leventina, called in Strabo and Ptolemy the country of the Lepontioi, and by the side of the Ticino which flows along the Val Leventina into the head of the lake Maggiore. The name Leventina is little altered from the ancient word Lepontii.

From Como to Varese is 16 English miles, from Varese to Laveno, on the lake Maggiore, is 12.

The length of the lake Maggiore, from Locarno at the north end to Sesto Calende at the south, is 37 English miles.

Boromean Islands.—At Laveno we embarked on the lake Maggiore, anciently called Lacus Verbanus, and proceeded to the Isola Madre, the first of the Boremean islands that was adorned.

Isola Madre.—The island consists of a rock of gneiss, not greatly elevated above the water.

Orange Trees.—The south and east sides of the island are formed into terraces, against the walls of which orange, lemon, and citron trees, and other kinds of the genus citrus are planted. The general name of the plants of this genus in Italy is agrumi. These trees are covered with a house of boards during six months of the year. The houses are put over the plants in the beginning of November, and now, on the 20th of April, the gardeners are preparing to take them off. The front of the houses has wooden doors on hinges, that are opened in fine weather to give light and air to the plants. In very cold weather a fire of charcoal is made on the floor within the wooden house. The oranges are inferior to those produced in a warmer climate, as at Genoa. The lemons are succulent and more acid than those of Genoa, but not so fully ripened.

Agave.—The Agave Americana, Cactus ficus

indica, and myrtle, thrive in the open air, though they will not bear the open air at Milan, which is half a degree farther south, and considerably lower,* but in a situation less sheltered by mountains. The height of the lake above the sea is 677 English feet.† The lake of Geneva, which is only half a degree farther north, is 1230 feet above the sea, and therefore the temperature there is not so warm as at the lake Maggiore. There are some well grown cypresses on the island. Other ornamental plants are Cercis siliquastrum; Laurus nobilis, one of which is 2½ feet diameter in the stem. On the Isola Bella an orange tree of 140 years old has a stem of a foot in diameter. Scarlet honeysuckle is in flower.

House.—The house, which is pretty large, but without architectural ornament, was inhabited during 18 years by one of the Counts Boromeo, who had served with distinction as a general officer; he amused himself with a theatre, which still exists, and maintained a small company of players.

Chapel.—Near the house is a small chapel, in which, as the guide relates, San Carlo Boromeo said

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* The lake Maggiore is stated to be 150 braccia higher than Milan, or 287 English feet; the braccio of Milan being 23 $\frac{989}{1000}$ English inches.

† See a map of the Simplon road published at Paris, in which the height of the lake Maggiore above the sea is marked 206 $\frac{60}{100}$ metres, or 677 $\frac{6}{10}$ English feet.

mass when he brought his relations to the island during the plague of Milan. San Carlo himself immediately returned to Milan to administer relief to the sick.

Isola Bella.—The Isola Bella, a mile distant from the Isola Madre, was likewise formed from an uncultivated rock by Count Vitaliano Boromeo in 1671, to rival the beauties of the Isola Madre. The house and gardens have been increased since that time. It is frequented by the present Count Boromeo in August and September. It is also a gneiss rock, but less elevated than the Isola Madre. At one end is a structure raised on arches, forming a pyramid of ten tier of terraces, planted with orange, lemon, and citron trees; these trees are covered with houses of board, like those on the Isola Madre.

House.—The exterior of the house is more decorated than that on the Isola Madre. In the lower part of the house are rooms, of which the floors, walls, and ceiling, are covered with musaico rustico, a mosaic formed of black and of white water-worn stones, and broken quartz. These rooms are vaulted and suited for coolness in warm weather.

Near the house is a small village inhabited by fishermen.

There is a third island, which is not embellished, and contains some cottages of the country people.

The Boromeo family has considerable possessions

in the country that extends along the west shore of the lake, which is in the territory of the King of Sardinia.

View.—The mountains that surround this part of the lake are not precipitous to the water's edge. Between the foot of the mountains and the lake there are some neat towns which embellish the prospect.

The Simplon.—From the Isola Bella is seen the Simplon road passing along the side of the lake and the high mountain of the Simplon is seen at a distance with much snow on it, overtopping the mountains that surround the lake.

On the western shore of the lake, opposite to the Boromean islands, is Baveno, where there are quarries of red granite, in which occur the large opaque crystals of felspar which are seen in cabinets of minerals. These crystals are frequently of half an inch each side, but some have been found so large that each side of the quadrangular prism measured a foot.

From the islands we continued our journey down the lake by water. At Arona, on the west side of the lake, is a colossal statue of that zealous and beneficent bishop of Milan, San Carlo Boromeo, 60 feet high, formed of plates of bronze. It was erected by the Boromeo family. San Carlo was born in 1538, in a castle near Arona, which is now demolished.

Sanguine Complexion.—In the neighbourhood of the lake of Como and the lake Maggiore many of the people have light-coloured eyes and light-chesnut hair, whilst at Milan, as in other parts of Italy, dark complexions are more frequent; there are, however, *red-haired people amongst the inhabitants* of Rome, as before mentioned.

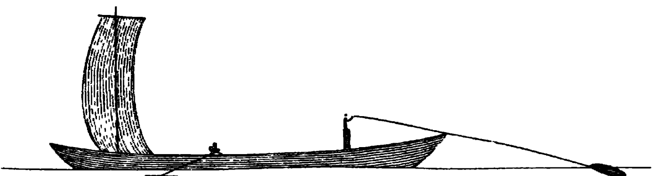
The country women near Como and the lake Maggiore have a peculiar head-dress, composed of silver pins, and a horizontal wire terminated at each end by an oval silver knob of the size of a pigeon's egg.

We slept at Sesto Calende, near the southern extremity of the lake. The journey by land to Milan is shorter and more expeditious, but, in order to see the river, I went in one of the barges which descend the Ticino and the canal, a distance of about 45 miles, which we accomplished in 14 hours. The distance by the high road is 33 English miles.

The barge was loaded with fire-wood and planks of walnut and poplar going to Milan. The passengers, people from the villages on the lake, going to Milan and other parts of the low country. The barge has no cabin to shelter the passengers, but the want of it was not felt on this occasion, the weather being fine.

Ticino.—The Ticino, at its issue from the lake, is 300 feet or more in breadth, six feet deep in the middle, and pretty rapid. In some of the more

Barge for carrying Timber and Stones on the Lake Maggiore and Naviglio.
Vol. II. P. 148 149 153



Small Boat on the lake Maggiore.



W. & D. Lizars Sculpt

Edinburgh Pub. ... by A. Constable & Co 1820

rapid parts of the river the barge, which drew about three feet water, grazed the gravel stones, of which the bottom consists. The barge is steered by a very long oar at the stern, and particular attention is required in steering down the rapids. A barge that accompanied ours had a hole made in her bottom in going over one of the gravel banks, and was obliged to shift her cargo into another barge. The water becomes more abundant in summer, when the snow melts on the mountains, and in that season the navigation is safer and more expeditious.

Gravel Banks.—There are large gravel banks by the side of the river, of the height of fifty feet and upwards, composed of rolled stones of hornblend-shistus, quartz, some serpentine, and granites. The water is clear and transparent. Long weirs, with converging sides of wattled branches, are constructed for catching fish.

Wayside Chapels.—When we passed the little chapels and images of the Virgin, which occur by the side of the canal, and particularly at Nostra Signora della Maggia, the master of the barge called to the passengers to take off their hats and say an ave for a prosperous voyage, himself giving the example.

Canal.—Eleven miles below Sesto is a weir across the Ticino, which turns a part of the water into the naviglio grande, or canal, which goes to Milan. Along the canal, which was begun so early

as 1179, and completed in 1257,* our barge continued its route. The course of the canal continues parallel to the river, and near it, but not in sight, as far as Bufalora, where the road from Milan to Turin crosses the canal; after this the canal proceeds in a more westerly course towards Milan. The length of the canal, from the place of its derivation from the Ticino, to Milan, is 30 English miles. It always descends, and therefore has no locks. The current in the canal is at first pretty rapid, but diminishes as we approach Milan.

Barges dragged back.—The barges loaded with wood, granite, marble, and other articles, are carried down by the current from the lake Maggiore to Milan; the barges return empty, and are dragged up laboriously by horses against a rapid stream. There is no good towing path by the side of the Ticino, so that, in many places, the horses are obliged to go in the water.

We pass a wheel 20 feet high, with buckets on the rim, for raising water, and moved by the current of the canal.

Canals of Irrigation.—There are sluices on the side of the canal for giving out water to the small canals of irrigation that pass between the fields. These sluices are secured by lock and key. The

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* See Giulini, Mem. di Mil. Tom. VI. p. 501, and Tiraboschi, Stell. dell. Lett. Ital. Tom. IV. p. 502.

proprictors of the ground pay for receiving a certain portion of water to irrigate their fields, and this quantity is accurately regulated by the aperture of the sluice, and the depth of the aperture, below the surface of the water, according to the principles of hydrostatics.

Rice.—They are now sowing rice on the 21st of April. The ground for this purpose is first ploughed, and mounds being formed all round the field in order to contain the water, which is allowed to flow from the irrigating canal, and to cover the surface of the field to the depth of three or four inches, the rice is sown by throwing it on the water. The seed has been previously steeped in water, that it may sink when thrown on the inundated field. Men and women go wading with spades to put all the lumps of earth under water. The field is kept under water till the rice is nearly ripe, and in summer, putrid effluvia very offensive to the smell, and injurious to the health, are exhaled from this large surface of stagnant water, full of decomposing vegetable matter, and agues or intermittent fevers affect the inhabitants in the vicinity. Only one crop of rice is taken, and the ground is employed the following year in other crops that do not require to be laid under water.

The grain of rice is freed from the husk, by a pestle and mortar, worked by a water wheel. It is then sifted, and is in a marketable state.

The machine used for freeing rice from the husk in China is also of the nature of a pestle and mortar, the pestle being placed on one arm of a lever, the other arm of which is moved by a man who walks upon it. Wheat, barley, rye, and oats, are not susceptible of this operation, because their husk adheres more firmly to the grain, and cannot be separated by beating. The husk of barley, as used in the north of Germany, Holland, and Scotland, is taken off by grinding. Strabo mentions a kind of grain, κεγχρος, that grew in wet ground in Circumpadan Italy, used as food, and never suffering by bad seasons; * it is not evident what kind of grain he alludes to.

Rice and Macaroni.—Rice is much used as food in Italy, and the most common dishes at the inns are rice soup and macaroni soup.

The word Maccheroni is used in Italy in the plural to denote the pieces of a paste made of wheat-flour and water; the Italians prefer that which is fresh made, and made at home, and called pasta di casa, household paste. Macaroni is manufactured in the large way in many towns of Italy, but chiefly at Genoa and Naples; it is made of a kind of wheat, the grain of which is very hard. Macaroni, in the form called vermicelli, is also manufactured in Paris.

* Strabo, Geog. Lib. 4.

After Robecco, the current of the canal is less rapid than it is above, and the barge is impelled but slowly. One man rows near the bow on the larboard side.

Irrigation.—Here and there sluices give out water to the small canals of irrigation.

Besides the Naviglio Grande, which derives water from the Ticino, and forms the communication between the lake Maggiore and Milan, there are two other navigable canals, which terminate at Milan. The Naviglio Martesana, from the river Adda to Milan, and the canal from Milan to Pavia. *

We arrived at Milan in the evening.

The road from Milan to Geneva, by Duomo Dossola and the Simplon, was not yet quite free from snow on the 23d of April; I therefore took the way of Turin and Mont Cenis, where the passage over the Alps is kept open at all seasons. The district which comprehends the Simplon road was allotted to the King of Sardinia by the Congress of Sovereigns at Vienna in 1815.

The Ticino.—After leaving Milan we cross the canal from the lake Maggiore at Bufalora, and soon after, by a bridge of boats, the Ticino. The piers are seen of a bridge, intended to consist of five or six wide arches, a work of the French, under Bo-

* See Le Traité des Rivieres et des Torrens, par le Pere Frisi, 1774.

naparte, which has not been continued. By the side of the river is a tract of uncultivated ground covered with alder and poplars, which used to be the haunt of robbers, who, after committing depredations in the Milanese, immediately passed the frontier into the dominions of the King of Sardinia.

Robberies.—A gentleman travelling alone in his carriage was robbed a few stages from Milan some days before I left it, but these occurrences are not frequent in the north of Italy, as the Austrian government and the King of Sardinia have a sufficient number of troops to maintain the police of the country. In the territories of the Pope and of Naples the military force is so small, ill paid, and ill regulated, as to be insufficient for repressing the banditti, and both these governments have been obliged to enter into treaty with different bands of robbers.

After passing the Ticino the baggage is examined at the Piedmontese customhouse.

View.—To the north are seen the Alps, occupying 80 degrees or more of the horizon, the more distant of these mountains, covered with snow; to the south the Apennines, at a distance of 30 miles, with snow on the highest.

Heath.—After the Ticino is a moor covered with heath, called Erica vulgaris, and broom, called Spartium scoparium by Linneus.

Novarra.—At Novarra is a collection of antique Roman inscriptions and altars arranged round the

gallery or corridor of the cloister near the cathedral. These inscriptions are published by Gallerati.

Rice Ground.—After Novarra is much rice ground, now at this season laid under water by means of the canals of irrigation.

Eighteen miles from Turin the country is fine and well cultivated.

Rye.—There is much rye, which is now in ear. They are now, on the 24th of April, ploughing the ground for receiving the seed of Indian corn.

Plough.—The plough is drawn by a pair of oxen without reins, which the man who holds the plough guides by means of a long stick.

Reins for Oxen at Rome.—At Rome the oxen are guided by a rope attached to a pair of iron pincers, which include and press the septum of the animal's nose.

Culture of Silk.—The trees, by the sides of the fields, are walnut and white mulberry. The mulberry is not yet in leaf. In the proper season the leaves of the white mulberry tree are gathered and carried to market, and sold to the persons who rear silk-worms. The culture of silk-worms is carried on to a great extent in the neighbourhood of Turin. At this season the eggs of the silk-worm are not yet hatched.

Seed of the Silk-Worm.—These eggs are in form of small grains, and are sold in Turin at this season under the name of Seme de' Bigatti. They are the

produce of some coccons which the preceding year were kept in the shade and allowed to pass into the state of moths; the female moths, after impregnation, deposit the eggs; the eggs are kept till the next season in a linen cloth in a cool place. As soon as the mulberry leaves are advanced the country women warm the eggs in their bosom, and the eggs produce small caterpillars, which require the mulberry leaves for their food and growth.

White Mulberry.—The white mulberry tree grows more rapidly than the black, and it is the white that is cultivated in Tuscany and Lombardy, but in some warmer countries the black mulberry is cultivated. The large leaves of the white mulberry growing on moist ground make the caterpillars swell and become pellucid; the smaller and firm leaves produced on a dry soil are preferred.

Dandolo on Silk-Worms.—An esteemed work on the rearing of silk-worms was published lately at Milan by the Cavaliere Dandolo. *

History of the Culture of Silk.—Silk is mentioned by Virgil in his Georgics, and by Pliny; it was imported into Rome and Constantinople from China, partly over land and partly by Ceylon and the Red Sea. In the time of Justinian, about the year 552, the eggs and the mode of rearing the silk-

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* Dandolo Sopra le Bache a Seta, (Bigatti.) Milan, 1817, in four volumes.

worm were first introduced at Constantinople from China by two Persian monks who had resided in China. The cultivation and manufacture of silk was afterwards diffused in Greece. The Arabs learnt it from the Greeks, and introduced it into Lisbon and Almeria. The Normans, when they possessed Sicily, and made an inroad into Greece, carried off silk growers and manufacturers from Peloponnesus, and established the manufacture of silk in Sicily. From Sicily it spread into Italy, and in the thirteenth century the republic of Lucca possessed a monopoly of silk exclusively amongst the other republics of Italy. *

Growth of Silk in the North.—White mulberry trees are planted in the country between Berlin and Dresden, but the culture of the silk-worm has not succeeded to any extent in that climate, where the cold is so considerable. The climate was also found contrary to the culture of silk in England, where it was attempted in the reign of James I. †

Silk forms a great article of export from Piemont. At Lyons the Piemont organsin is used for the length of the web, the silk of Dauphiny and Provence for the breadth or weft. The silk used for the length of the web is of greater value than the other, on account of its great length.

* See Gibbon, Decl. Rom. Emp.

† Anderson's Hist. of Commerce.

Dora Baltea.—Over the Dora Baltea is a handsome new bridge of several flattish elliptic arches of gneiss or micaceous shistus, a work of the French. Other streams, which run towards the Po and intersect the road, are crossed by bridges of boats.

The Piemont Hills.—At Turin, and a few miles down the river, is a group of low hills some hundred feet in height, some of them wooded. On the summit of one of these hills near Turin is seen the church of La Superga, where the kings and princes of the house of Savoy are interred. The church of La Superga was built in consequence of a vow made by the King of Sardinia in 1706, when Turin was besieged by the French. Prince Eugene came to the relief of the town, and defeated the French army. The church was begun in 1715, and consecrated in 1731. The church is magnificently built. It is round with a cupola, and cost L.100,000 Sterling, the expence being increased by the height and difficult access of the hill on which it is situated. The architect was Philippo Juvara, of whom the Marquis Maffei has published an account along with a plan of La Superga.* The sides of the hills immediately adjacent to Turin, and to the south of the town, present an agreeable object, being adorned with villas.

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* Osservazione Letterarie dal Marchese Scipiono Maffei, 1738.

Turin.—Population.—Ancient fables relate that Turin was founded by Phaeton, an Egyptian prince, who was afterwards drowned in the Po, and his sisters changed into poplars, the ancestors of the trees that still grow on the banks of the river. In the time of the dominion of the Romans this city was called Augusta Taurinorum. The number of inhabitants in Turin is stated to be 80,000. The elevation above the sea is 941 English feet, according to Shuckburgh.

Buildings.—The streets of Turin are in straight lines, and most of them cross at right angles. The houses are high, being of four stories, the first of which, above the ground floor, is a piano mezzano, or entresol. They are of brick, plastered over, uniform in their height and design, but loaded with pediments over the windows, scrolls, and other ill selected ornaments in plaster.

The street pavement is inconvenient, being formed of small water-worn stones, with an open gutter in the middle of the street, over which there are bridges of gneiss flags. Carriages cannot pass along the middle of the street by reason of the bridges.

Turin is supplied with water by an aqueduct or canal derived from the river Dora. This canal passes along the upper part of the city, and from it streams of water are occasionally allowed to flow along the channels in the middle of the streets.

This water is also employed to clear away the snow from the streets in winter, and for this purpose, the water is kept up for some time, and then let out so as to flow along the streets in a considerable body; the streets have a gentle declivity, which allows the water to flow off towards the Po.

The piazza castello, or great square, the square of San Carlos, the Po Street, (contrada di Po,) and others, have porticoes or galleries, under which the foot path passes.

King's Palace.—Amongst the pictures in the king's palace, in the piazza castello, or great square, are the following:—The four elements by Albano, which were in the Louvre during the reign of Bonaparte. Pictures of the battle of Belgrade in 1717, and other battles in which Prince Eugene of Savoy commanded; Prince Eugene was of the Carignano branch; this branch of the house of Savoy descended from Francis of Savoy, son of Charles Emanuel I. and general of the armies of Louis XIII. of France. Francis was the grandfather of Prince Eugene, who was born in 1663; Prince Eugene went into the service of Austria, where he distinguished himself as an able general and a skilful negociator; he died in 1736.— A portrait of Paul III. Farnese by Titian. The Supper at Emaus by the same master, and other pictures.

Genealogical Tree of the Royal Family.—The house of Savoy is a branch of the family of Saxony,

and, according to a genealogical tree painted in the palace, is deduced from Witikind King of Saxony in 723. Witikind was contemporary with Charlemagne, and, on a medal struck by Bonaparte as a compliment to the King of Saxony, the head of Witikind and the King of Saxony decorate one side, Bonaparte and Charlemagne the other. The genealogy of the house of Savoy is well ascertained to be one of the most ancient, and the authentic history of the family is traced to the year 1020. *

The word Sapaudia, afterwards written Sabaudia, first occurs in Ammianus Marcellinus, and was applied to a region which comprehended the country now called Savoy, and some neighbouring districts. From the Romans Savoy passed under the dominion of the Burgundians in 413. In 888 it was part of the kingdom of Upper Burgundy. This kingdom of Upper Burgundy came under the German emperors in the tenth century, and was governed by counts whom the emperors named. † According to most genealogists, the counts of Maurienne and the house of the King of Sardinia are descended from the house of Saxony. The first of these Counts mentioned in history is Berold or Berthold Count of Maurienne, viceroy of the kingdom of Arles, and vi-

* Muratori, Ant. Ital.

† L'art de Verifier les dates des Monumens Historiques, par un Religieux Benedictin de la Congregation de Saint Maur.

carious Count of the empire under Henry II. From Berold, who lived in 1020, there is a succession of Counts, from whom the present royal family of Sardinia is descended.

Amedee II., in 1108, was the first Count of Savoy. Chambery was the residence of the Counts, afterwards entitled dukes, of Savoy, before they got complete possession of Piemont.

Montferrat is a hilly district, of which Casal is the principal town; after having passed from the dominion of the Romans to the Goths, and then to the Lombards, was conquered, with the rest of Italy, by Charlemagne, who appointed a beneficiary and removeable count to govern the district. It was afterwards formed into a marquisate, a hereditary fief of the empire. Aledran, in 938, was the first marquis. Charles Emmanuel Duke of Savoy had claims on the dutchy of Montferrat, and, in 1613, made himself master of that dutchy, the possession of which was confirmed to the house of Savoy, by the peace of Utrecht, in the beginning of the eighteenth century.

Sardinia was long in the possession of Spain. In 1708 Austria took possession of it. It 1718 it was given to Victor Amadeus II., who gave in exchange Sicily, which he had taken.

Genoa was added to the dominions of the King of Sardinia, with the title of Duke of Genoa, by the Congress of Vienna in 1815.

The King of Sardinia is now on a visit to his new dominions of Genoa. The Prince of Carignano, the heir-apparent, is popular. He married a daughter of the Grand Duke of Tuscany some months ago, (April 1818.)

The elder brother of the king abdicated the throne in 1802, and lives at Rome. His sister, the Dutchess of Chablais, also resides in that city.

Chapel of the Santo Sudario.—The circular sanctuary of the Santo Sudario, situated at the end of the cathedral, is a singular edifice, loaded with scrolls and other ornaments in a bad style.* It was built about 1670. The architect was Guarini, a Theatin monk; † Lalande says that Guarini designed the church and cupola of Val de Grace at Paris; but, according to Durand, who is better authority on this point, the architects of that edifice, which was begun in 1645, and finished in 1658, were first Francis Mansard, and afterwards Lemercier, Le Muet, and Le Duc.

The Sudario or Sindone, which is preserved in this sanctuary, is said to be the shroud in which the body of Christ was wrapped in the sepulchre, retaining the stains of the stigmata or wounds, and

* See Architettura Civile di Guarino Guarini.

† The Teatini were a monastic community of clerks regular, named from the town of Teatea, now called Chieti, in Abruzzo, of which town their founder, afterwards Paul IV. Carafa was bishop; Paul IV. died in 1559.

the impression of the figure of the body. It was brought from Palestine by one of the family of Lusignan, connected with the King Cyprus of the family of Savoy. Saint Charles Boromeo walked in pilgrimage from Milan to visit the relic. There are other shrouds of Christ kept in other Roman Catholic churches, and the authenticity of each of them has been asserted. The Sudarium, which is one of the four principal relics kept over the four colossal statues at the piers of the cupola of Saint Peter's at Rome, is shewn as the handkerchief which Santa Veronica applied to the face of Christ during the passion, and, when taken off, found it retaining the impression of the holy countenance.

The interior is gloomy, being incrusted with a dingy greyish-blue marble from Fabrosa, six miles south of Mondovi, in Piemont. This dark-coloured marble was chosen as suitable for a chapel, dedicated to a relic of the tomb of Christ.

Antique Marbles in the University.—Under the portico that surrounds the court of the university is a collection of ancient Roman inscriptions and altars. The Marquis Maffei was the first who began to arrange them in the court. These inscriptions are published in the work of Rivautello and Ricolvi. *

Industria.—Some of these marbles are from the

* Marmora Taurinensia, published by Rivautello and Ricolvi, 1741.

ruins of the ancient Roman town Industria, situated 18 miles from Turin, down the Po. These ruins of Industria were discovered in 1744. Industria is mentioned by Pliny. The village in the neighbourhood is called at this day Lustria. Excavations were made amongst the ruins, and medals, small bronze figures, and other ancient works, were found, * and deposited in the king's collection at Turin. This ancient town was situated at the place where the Po is increased in size, being below the influx of the Dora and Dora Baltea; and, before the town became a Roman colony, Pliny mentions, that it had the name of Bodincomagum, the Po being called Bodincum on account of its depth.

The university of Turin was first instituted in 1405, but the buildings are of the eighteenth century. In the apartments on the ground floor is a collection of antiquities.

Library.—The principal floor has also a portico, supported by columns, towards the court; this portico gives entrance to a cabinet of philosophical instruments, and to a room containing a considerable library.

Isiac Table.—The Isiac table of massive copper or bronze, inlaid with hieroglyphics in silver, was in this library, and was removed to Paris, where it

* Il sito dell' antica citta d'Industria scoperto ed illustrato da Giovanni Paolo Ricolvi ed Antonio Rivautello, 1745.

continued till the fall of the dominion of Bonaparte. This very curious piece of antiquity is four feet in length, two feet four inches broad, and of considerable thickness. It formerly belonged to Cardinal Bembo. It was sold to the Duke of Mantua; and, after the sack of Mantua by the troops of the emperor in 1630, it was amissing for some time. It afterwards came into the possession of the King of Sardinia. It has been described by many authors, and some have attempted to explain the hieroglyphics. *

The Observatory and cabinet of minerals are in other parts of the town.

Astronomical Observatory.—The Observatory is under the direction of the astronomer royal Plana, an able mathematician. It is furnished with a 40 inch transit instrument by Le Noir.

View.—From the top of the Observatory is a fine view of the chain of the Alps towards the north, and occupying almost half the circuit of the horizon. The nearest are fifteen or twenty miles distant. The openings of the narrow valley at Susa, through which the Mont Cenis road passes, is conspicuous to the west.

Cabinet of Minerals.—The cabinet of minerals contains a good modern collection of crystals, sim-

* Laurentii Pignorii Mensa Isiaca, Amst. 1670. Recueil d'Antiquités par le Comte de Caylus, Tom. VII. 1767. Sablonski in the Miscel. Berolin, Tom. VI. and VII.

ple minerals, and rocks, named and arranged according to the most approved methods of the Abbè Haüy and others.

Verde di Susa.—There is a collection of polished marbles from Piemont, amongst which is the green magnesian serpentine, with white veins, called Verde di Susa, which is used in Turin for making tables and chimney-pieces. Adjoining to the cabinet of minerals is a collection of stuffed skins of quadrupeds. The best private collection of minerals in Turin was lately purchased by an English gentleman, and is now in London.

Cannon Foundery.—In the arsenal there is a foundery for brass cannon, which are cast solid, and bored in a horizontal position, the gun revolving, and the boring bar remaining fixed, according to the most approved method. The boring-machine, which is well executed, and a forge hammer for drawing out iron, are put in motion by water from the conduit derived from the Dora.

Citadel.—The citadel of Turin is a regular pentagonal fortification, mined, and countermined, with very extensive subterraneous galleries which are celebrated. The fortifications which formerly surrounded the town have been levelled.

Army.—The army of the King of Sardinia is considerable, amounting to 80,000 men. This number depends upon an arrangement made at the Congress of Vienna, and serves to form a barrier

for the protection of the Austrian territory, and the rest of Italy, against the attacks of France. Every man in the King of Sardinia's dominions from 18 to 26 serves in the army; now in time of peace, they serve for three or four months, and then are allowed to go home during the next three months.

Ice-houses.—On one side of the city are the ice-houses for the supply of the inhabitants. They are large, and half a dozen in number. Each has a small glass window to give light to the workmen, who take out the ice, and the window is stopped with straw when not used. Fish is put into the ice-houses to be preserved for some days. Hard by a few acres of ground are formed into a shallow reservoir, into which the water is admitted in winter, and the ice from this reservoir is employed in filling the ice-houses.

Mists.—Turin in winter is incommoded by mists which rise from the Po, and hang over the town and neighbourhood. Rivoli, ten miles distant, is free from these mists.

Long Bread.—A kind of bread of a singular form is common in Piemont, called pane grisino. It is in shape of a slender stick, 18 inches in length, and a quarter of an inch thick. Of the bread in other parts of Italy, that in Verona, Bologna, and other towns of Circumpadan Italy, is often very white and agreeable to the taste, and not spungy. The bread at Rome is made in a different manner, and is too spungy.

Lottery.—The lottery of Turin, like that of other places in Italy, is constituted after the model of the lottery of Genoa, as are also the lotteries in France. The lottery of Genoa was established in 1620, and a lottery was introduced into France in 1757; before that there were lotteries at Paris, on the plan of those now used in England, and part of the produce of one of them was appropriated to the building of the church of St Genevieve at Paris. The profit of the Italian lottery in France was for some years given to the military school, and afterwards it went to the government. The Italian lotteries have been spoken of before at page 523, but without stating the particulars.

In these Italian and French lotteries there are 90 numbers, and at each drawing five numbers are taken out. The person who takes a ticket may adventure in different ways; he may bet that one particular number of the 90 is to be drawn; this is called in France extrait, per eletto at Rome; he may bet for two particular numbers being drawn, or an ambe; he may bet for three, or a terne; he may bet for a quaterne, or for a quine.

In some of these lotteries in Italy, France, and Germany, the winners receive the following proportions, which are always such as to leave a large profit to the holder of the lottery:—An extrait simple, where the order in which the number comes out is not specified, receives 70 times the stake; an

ambe about 266 times; a terne 5142 times; the quaterne and quine are not allowed in some of the lotteries in Italy. In some lotteries in Germany a quaterne, in case of gaining, receives 60,000 the stake; in France 75,000 times, and the quine receives a million times the stake.* Extrait, ambe, terne, quaterne, and quine, are the terms used in France.

During the reign of Bonaparte, the government lottery in France was drawn every week. The drawing took place alternately at Paris, Lyons, Strasburg, Bourdeaux, and Brussels.

Lotteries of this kind have not been adopted in England. They are more hurtful than the English lotteries, as they afford a wider field for gambling, the adventurer having it in his power to risk his money for a very small chance of a considerable profit. The first lottery authorized by law in England was in 1630, in the reign of Charles I. in behoof of the project for making a conduit to convey water from Hodsdon to London.†

Theatres.—At the Teatro di Carignano, which is opposite to the palace of the Prince of Carignano, the heir apparent to the crown, Italian comedies are performed; there are musical operas at another theatre; the great theatre for operas is not open at this time.

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* Voyage en Italie, par M de Lalande.

† Anderson's History of Commerce.

Maypoles.—They are now preparing maypoles, 50 feet high, which it is the custom to erect before the palace of the king, of the Prince of Carignano, and of four or five of the principal inhabitants of Turin.

French Language.—The number of people who speak French is greater in Turin than in other towns of Italy.

Dialect of Piemont.—The dialect of Italian spoken by the common people of Piemont has not many terminations in vowels; for example, Lasne nen caschè en t' la tentasion, Let us not fall into temptation. *

Men of Learning.—Amongst the natives of Piemont who have attained celebrity in science and literature are the following:

Beccaria.—Father BECCARIA, who made many astronomical and meteorological observations at Turin, and measured a degree of the meridian in Piemont in 1760, in the course of which operation he observed the quantity of the deviation of the plum line from the vertical occasioned by the attraction of Monte Rosa. † The base from which the triangles were deduced was measured along the road, from Turin to Rivoli, six miles in length. Father Beccaria was of the monastic order of the Scuole Pie. He attended much to electricity. The great

* See Pipino Vocabulario Piemontese.

† Beccaria, Gradus Taurinensis, 1774.

mathematician, Lagrange, was his pupil in physical science. Beccaria died in 1781.

Lagrange.—LAGRANGE, whom all judges of the subject acknowledged to be the first mathematician of his time, was born at Turin in 1736. His father was treasurer of war at Turin, and possessed a considerable fortune, but lost it by speculations in trade.

Lagrange was professor of mathematics in the artillery school of Turin, at the early age of sixteen. His first papers, in which he elucidated the most difficult questions of mathematics, were published when he was 23.* He promoted the institution of the Academy of Sciences of Turin, and the Memoirs of that academy contain many of his papers.

In 1766 Lagrange was appointed to succeed Euler in the place of director of the physico-mathematical department of the academy of Berlin, with an annual salary of L. 240 Sterling. This place had become vacant when Euler went to Petersburg; and Frederic II., who thought himself a judge of poetry, and had less esteem for mathematics, wished D'Alembert to accept the place, as D'Alembert was both a writer of verses and a mathematician; but D'Alembert was unwilling to leave Paris. Lagrange held this place during 20 years.

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* Miscellanea Philosophico Mathematica Societatis Privatae Taurinensis, 1759.

After the death of Frederic II., the academy of Berlin met with less encouragement from government, and Lagrange left Berlin, being called to Paris by the French government in 1787. Long before this he had been elected a member of the Academy of Sciences of Paris. He was received in Paris with distinction, and government gave him rooms in the Louvre.

Lagrange, though quite unconnected with political parties, experienced great inconvenience during the Revolution, as almost all the inhabitants of Paris did. He was a zealous and active member of the committee for arranging the new decimal system of measures and weights. Lavoisier, one of the members, was guillotined, and most of the others were dismissed.

Robespierre decreed that all foreigners should quit France, but Lagrange was excepted, through the intercession of Guyton the chemist, who was connected with the Jacobin government; Guyton obtained that Lagrange should be placed in requisition by Robespierre to examine the theory of projectiles.

He was appointed professor at the Normal school for the instruction of schoolmasters, an institution which was of short duration. The lectures he delivered there are published.

Lagrange was made a senator and count by Bonaparte. Lagrange died on the 10th April 1813, at the age of 77.

He was twice married; his first wife was a native of Turin, a relation of his own. After her death, and when he had come to reside in Paris, he married the daughter of the astronomer Lemonnier. He had no children.

His studies were diversified; besides his chief pursuit, the mathematics, he applied to metaphysics, the history of the human mind, the history of religions, the theory of language, medicine, botany, and chemistry. *

His celebrated works are the Mechanique Analytique; La Solution des Equations Numeriques; Sur le Calcul des Fonctions, in which he deduces fluxions, or the differential and integral calculus, from algebraic series; many papers published amongst the Memoirs of the academies of Turin, Berlin, and Paris.

Count ALFIERI, the tragic poet. †

The Abbe DENINA, author of several works on the history and literature of Italy; he lived at Berlin, was a member of the academy of that place, and was afterwards librarian to Bonaparte, and resided at Paris, where he died.

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* See Notice sur la Vie et les Ouvrages de M. Lagrange, (par M. le Chevalier Delambre, secretaire perpetuel,) in the Memoires de la Classe des Sciences, Mathematiques et Physiques de l'Institut Imperial, année 1812. (published in 1814.)

† See page 171, Vol. I.

BARETTI, the author of an English and Italian Dictionary; he taught Italian in London, and was a contemporary and acquaintance of Samuel Johnson.

CERUTTI, who made some figure as a wit and pamphleteer at Paris in the beginning of the Revolution of the French Government, was born at Turin in 1738. He was of the order of Jesuits, and, in 1762, at the time of the suppression of that order, wrote a work entitled Apologie de l'Institut. After this he was well received at the court of France. He was a zealous partizan of the French Revolution, and the intimate friend of Mirabeau, whose funeral oration he pronounced in Saint Eustache in 1791. He was a member of the National Assembly of France, and died in 1792.

In the beginning of the Revolution the municipality of Paris abolished the names of streets which were taken from saints and statesmen, and substituted the names of writers who had promoted the principles of the Revolution. The Rue de Richelieu was changed to the Rue de la Loi. There was a Rue Jean Jacques Rousseau, and a Rue Helvetius, and a handsome street near the Chausè d'Antin was named after Cerutti. Afterwards, in Bonaparte's reign, this honour was given to the military, and he called his streets and bridges by the names of the battles he had gained, and of his favourite generals, the bridge of Austerlitz and of Jena, the Quai de l'Orme, the Rue de Rivoli, and others.

The writings that Cerutti published were discourses in prose, and political pamphlets, and small works in verse, which had some reputation in his day, but are now fallen into oblivion; amongst them are a Dissertation sur les Monumens Antiques; l'Aigle et l'Hibou, a fable in verse, with notes on different forms of government; Epitre sur le Charlatanisme; Lettre sur l'Origine et les Avantages de la Gaitè Française, and many other discourses, or essays, and political pamphlets. He wrote concerning assignats, from which he predicted great wealth to individuals and the community, but the event was very different; the assignats came to be literally of no value, and were never paid by the government, so that 100,000 livres of assignats was not sufficient to buy a loaf of the value of one livre. He was editor of the Feuille Villageoise, a newspaper published at Paris, for the purpose of disseminating the principles of the Revolution amongst the inhabitants of the country.

Palace of the Queen.—Near the city, on the opposite side of the Po, is the Villa della Regina, situated on the side of the hill.

Po Bridge.—The Ponte di Po, which leads to this palace, is built of gneiss, and consists of five elliptical arches; the road over it is level, without any rise. It was built by the French, some years ago, whilst they were in possession of Turin. The former bridge was of boats. The breadth of the ri-

ver measured along this bridge is 500 feet, the depth of the water three or four feet.

Il Valentino.—A mile from Turin, on the banks of the Po, is the old palace called Il Valentino, rebuilt in 1660 by Madama Christina of France, Dutchess of Savoy, Regent of Piemont, and daughter of Henry IV. It has pavilions, with high pitched slated roofs, like the Luxembourg palace at Paris, and is thus distinguished from all the other buildings in the neighbourhood of Turin, which have low pitched Italian roofs covered with tile.

Botanic Garden.—There is a botanic garden at Valentino. The truffles of Piemont are celebrated.

Stupinigi.—The country palace of Stupinigi, belonging to the king, is seven English miles from Turin. The palace was designed by Juvara in the eighteenth century, and some additions were afterwards made by Count Alfieri, the king's architect. The plan is singular, an elliptical saloon, from which four separate suits of apartments proceed like rays from a centre. The rooms are adorned with paintings of royal hunting expeditions. In a small enclosure they have a dozen red deer and a buck from Bavaria, for the purpose of replenishing the wood which surrounds the palace, the French having destroyed all the deer that were formerly in the wood. This palace was the residence of the Prince

Borghese, when governor of the French departments beyond the Alps, in the reign of Bonaparte.

La Veneria.—Other country seats of the king are La Veneria, six miles to the north, and Moncallieri on the Po, nearly opposite to Stupinigi, and five miles from Turin.

Hannetons.—At this season, the 27th of April, the walnut and other trees near Turin are infested with great numbers of the brown-coloured beetle, called Hanneton in France. These insects buzz about the trees in the evening, and are very injurious by eating the leaves.

Eaten by Fowls.—Common fowls eat these beetles, and are fattened with them; but this food taints the flesh and the eggs of the fowls with a most disagreeable taste.

Rolled Gravel.—The plain about Turin, under the soil, is composed of water-worn stones, which are called ghiaia in Italian: some of them are of the magnesian serpentine, called verde di susa.

The hill at the Palazzo della Regina contains strata in a soft state, like decomposed shale; it is of the deposit or formation, called, by Brocchi, tertiary marl.

Votive Pictures.—The Vergine del Pilone, so called from a pillar on which the Anunciation was painted, is a church situated on the Po, a mile from Turin. This church has great celebrity amongst some of the devout Roman Catholics, and the inte-

rior is hung with votive pictures, called, in Italian, voti. The custom of suspending these voti prevails in different towns in Italy. In some of the churches of Venice there are chapels of particular saints, or particular madonnas, which have a reputation for sanctity, and the walls of these chapels are quite covered with little votive pictures, daubed by some artist who keeps open shop for these productions at the corner of the street. A man falling from a window, a person overturned in a carriage, and such like accidents, are the subjects of these pictures, which are hung up by the individuals, who attribute their escape from danger to the saint, or madonna, whom they invoked in their peril. Other votaries hang up the figure of a heart, embossed in silver, or fix a silver crown to the picture of the saint. Votive tablets were also in use amongst the ancients, and, in collections of antiquities, are seen votive images of various parts of the body, which were hung up by the Greeks and Romans on the altars and in the temples, to accomplish vows made during sickness. These objects fixed up in the temples were called Anathemata.

Pinerolo.—Twenty-one miles from Turin, to the south-west, is Pinerolo, in a valley amongst the Alps, situated on the declivity of the Alps. About twelve years ago some considerable earthquakes were

felt at Pinerolo. The Val di Lucerna, ten miles south-west of Pinerolo, is near the north side of Monte Viso, the mountain on which the source of the Po is situated. The inhabitants of the Val di Lucerna are Protestants, called Waldese in Italian, and Vaudois in French. In the villages of La Torre and San Giovanni, inhabited by the Waldese Protestants, there are considerable establishments for spinning silk by the hand.

The founder of the sect of Vaudois, or Waldenses, was Pierre Valdo, a rich merchant of Lyons, native of the village of Vaud on the Rhone, who lived in 1180. He gave his goods to the poor, and his followers were called Les Pauvres de Lyon. He taught, that, Christians being brothers, every thing should be in common, and nothing appropriated. He preached, that his followers had the same power as priests in consecrating the sacraments. For these doctrines he was driven from Lyons, and chose, for his asylum, the mountains of Dauphinè and Savoy. He converted the inhabitants of the Val Pulte, now called Val Louis, and the vallies of Angrogne and Freissinieres, where his opinions still prevail. From these countries his doctrine was carried to Albi, in Languedoc, and his followers there had the name of Albigeois, Albigenses, in Latin. Their opinions on transubstantiation differ from the dogma of Calvin. Bucer, in 1530, attempted to

unite them to the Calvinists of Switzerland, but without success. *

Mountainous Nature of Italy.—Italy is a mountainous country, and high mountains are seen from all the principal towns. There is no place in Italy situated so far from the mountains as London, Paris, and Berlin, which are out of sight of high mountains.

Circumpadan Italy.—The great and fertile valley of the Po is the most extensive tract of cultivated ground in Italy; and, in the time that Rome flourished, was the source from which that city was supplied with various kinds of provisions. † Cir-

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* See le Grand Dictionnaire Historique, par Mre. Louis Moreri Prêtre, docteur in theologie, 1759.

† The great population, and the size and wealth of the towns, is a proof of the excellence of this region, (Celtica Interior, or Circumpadan Italy,) and in these respects the Romans, who possess it, excel all the rest of Italy. For the cultivated ground produces various fruits in abundance, and the forests afford such a quantity of acorns, that the city of Rome is chiefly supplied with the bacon fed in these forests.* It is also (κεγχροφορος) productive of millet, (what follows leads to suppose that rice is here spoken of,) by reason of the fields being well watered, and this is a most nourishing food, it resists the inclemencies of weather, and never fails, even when there is a scarcity of other grain. The sequel is respecting its wine, wool, and metals. Strab. Geogr. Book 5.

" Nec vero de virtute, constantia, gravitate Galliae (Cæ-

cumpadan Italy is a great valley of the Alps, included between the Alps and the Apennines, which are a branch going off from the Alps, at the head of the valley of the Po; the other cultivable regions of Italy are smaller plains and valleys of the Apennines, such as the upper and lower valleys of the Arno, the valleys of Foligno, and of Terni, and others. The Maremma of Siena, the Campagna of Rome, the Terra di Lavoro, or Campania Felix, so called from its great fertility, the Terra di Bari, and the Terra di Otranto, anciently Apulia, are plains between the foot of the mountains and the sea.

The Po, receiving the water from the east and south declivities of the Alps, and from the northern declivity of the Apennines, gives issue, as Polybius says, to more water than that which falls on all the rest of Italy. The principal rivers it receives from the Alps are the Stura, the Maira, the Dora Ripuaria, called Dorietta, or Lesser Dora, the Dora Baltea, called by Strabo Duria, the Sesia, the Ticino from the lake Maggiore, the Lambro, the Adda from the lake of Como, the Oglio, and the Mincio from the lake di Garda. From the Apennines, the Tanaro, Trebia, Taro, Parma, Lenza, Secchia,

alpinae) taceri potest. Etenim is flos Italiae, illud firmamentum Imperii Romani, illud ornamentum dignitatis." Cicer. Orat. 3 in Anton.

Panaro, and the Reno of Bologna. It is subject to inundate the cultivated ground more frequently since its channel has been embanked and confined in order to cultivate land formerly marshy.

The Alps.—The Alps, which separate Italy from the rest of Europe, and the Apennines, which branch off from the Alps in Liguria and run through Italy, occupying a considerable portion of its breadth, are one continuous chain of mountains. The great valley of the Po is included between these two diverging ridges of the Alps and Apennines; and the western part of the Alps also extends southward, forming the west shore of the Adriatic; so that the Adriatic is included between two chains of mountains which proceed from the Alps.

The ancient names of different parts of the Alps are considered to be of Celtic origin. These countries having been anciently inhabited by nations whose language was Celtic.

The word Alp is from the same source as Albion, the name given to Britain on account of its high shores. Strabo * mentions a mountain called Albios, from its vicinity to the Alps, and he calls one of the Alpine nations Albioikoi, a name of a similar signification with Oriktobioi or mountaineers, which he uses in another place. In Switzerland,

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Strabon. Geograph. Lib. 4

Styria, and the south of Germany, the hilly pastures to which the cattle are sent to feed are called Die Alp.

Maritime Alps.—The Alps, from Nice on the Var to Monte Viso and Embrun, are called the Maritime Alps. This district, in the time of the Romans, formed a province of Gaul, under the name of Alpes Maritimæ.

Cottian Alps.—Mont Genevre was called Mons Janus, and in the time of the Romans Mont Genevre, and the other mountains which extend from Monte Viso to Mont Cenis were called the Alpes Cottiæ, from King Cottius, who governed the nations in that region some years before the beginning of the Christian era, as Pliny mentions.* The arch of Susa was erected by Cottius, son of King Donnus, eight years before the birth of Christ. †

Cottius was King of the Alobroges, and ruled over several cities at the foot of the Alps, on the Italian side, amongst which was Segusium, now Susa ; the Segusiani, according to Strabo, extended over the country now called Savoy to that part of the Rhone which is between Geneva and Lyons. Cottius kept his people quiet within the inaccessible barriers of the mountains, whilst Julius Cæsar

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* Plin. Hist. Nat. Lib. 3, cap. 20.

† Muratori Inscript.

conquered the other nations of Gaul, but afterwards became the ally of Augustus, and constructed a road from Susa, * over the Cottian Alp, to Ebrodunum, now Embrun on the Durance. Ammianus, who wrote in the reigns of Julian and of Valentinian in the fourth century, describes this road across the Alps, from Susa to Embrun, and mentions the monument erected at Susa over the tomb of King Cottius, whose memory was venerated as a wise ruler of his people. †

Graian.—That part of the Alps which extends from Mont Cenis to Mont Blanc, including the Little Saint Bernard, was anciently called the Alpes Graiae, a name which is considered to be derived from Craig, which, in Welsh and other Celtic dialects, signifies a rock.

Pennine.—The Great Saint Bernard and the mountains extending towards the Saint Gotthard were

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* "Lenito tandem timore, in amicitiam Octaviani principis receptus, (Cottius Rex,) molibus magnis extruxit, ad vicem memorabilis muneris, compendiarias, et viantibus opportunas, medias inter alias alpes vetustas." Ammian. Marcellus, Lib. 15.

† "Hujus sepulchrum Reguli quem Itinera struxisse retulimus, Segusione est mænibus proximum; manesque ejus ratione gemina religione coluntur, quod justo moderamine rexerat suos; et adscitus in societatem Rei Romanae, quietem genti praestitit sempiternam." Amm. Marcell. Lib. 41.

anciently called the Pennine Alps, and the district was a province of Roman Gaul, under the name of Alpes Penninæ. The name is derived from Pen, which, in Celtic, signifies the highest part of any thing. Pen, in Welsh, is the head. The Latin word Penna and Apennine are from the same source. Pen and Ben occur in the names of several mountains in Wales and the Highlands of Scotland; and Penna occurs in the same signification in Italy. Penna di Billi is the name of a town situated on a hill in the Apennines, near Rimini, Penna and Civita di Penna are names of places in the Apennines in the northern part of the kingdom of Naples. A valley on the Italian side of the Great Saint Bernard is called Val Pelina, which is supposed to be a modification of the word Pennina.

The above mentioned derivations of the words Graian and Pennine are more probable than the derivations given by Pliny, who says that Pœnine is named from the passage of the Punic army under Hannibal, and Graian from the passage by which the Greek Hercules entered Italy. One of the principal mountains of the Pennine Alps is now called the Great Saint Bernard, from Saint Bernard, a native of the neighbouring town of Aost, who converted the inhabitants to Christianity, and built a monastery on the mountains. Leandro Alberti tells how the saint bound and imprisoned, in a deep ca-

vern, the malignant demon of the mountain.* This saint is different from Saint Bernard of Clairvaux in Franche Comtè.

Lepontine.—The Mount Saint Gotthard, and the mountains from which the Rhone and the Rhine have their source, were anciently called the Lepontine Alps, being the country of the people called Lipontioi, as Cæsar and Strabo mention. A modification of the name Lipontioi still exists in the Val Leventina, the name of the valley through which the Ticino flows into the head of the lake Maggiore, and along which valley the way passes across the Alps by the Saint Gotthard.

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* "Alfine (quest' Alpi Pennine) se addimandarono di San Bernardo, da Bernardo di Augusta Monaco, huomo santo, che quivi passò, e ridusse gli circonstanti popoli alla fede di Christo, e scaccio quindi il demonio infernale, e lo constrinse in una cupa caverna, che visibilmente assaltava, e uccideva le persone, che passavano per questi luoghi. Il quale havendo fatto cose molto maraviglhose, edificò quivi uno bello monastero, per potere meglio servire al Signore Iddio. Onde dopo la morte di tanto santo huomo, fu posto nome a questo monte il Monte di S. Bernardo da'l nome suo. Descrittione de la Italia di Frate Leandro Alberti Bolognese dell ordine de' Predicatori, a i dui Christianissimi Henrico Secondo re di Francia et Catherina sua consorte, 1550."

Leandro sometimes points out his stories about demons by a note on the margin, "Take notice, here is a fine story to tell by the fire-side," Risguarda bella favola da narrar appresso il fuoco

The highest of the Lepontine Alps is Mount Saint Gotthard, from which the Rhine and Ticino arise. The Vogel Berg, a summit twenty miles south-east of the Mont Saint Gotthard, is considered to be the Mount Adoula of Ptolemy and Strabo; * and, from this ancient name, a kind of transparent felspar found in these mountains was named by some mineralogists adularia.

Brenner.—A part of the Alps, situated in the Tyrol, between the rivers Inn and Adige, is called the Brenner Alp. The Brenni, who lived in the Val di Bregno, near the Mont Saint Gotthard, are mentioned by Strabo. The name Brenner is from the Celtic, Pyren, and Pirn, which signify a hill; from the same source are the names Pyrenees, Pyern, in Upper Austria, Birner, or Berner, Alps, in the canton of Bern, Birnbaumerwald, in Styria, which, according to etymologists, should be called Birner Wald, and Ferner, in Tyrol.

Rhaetian.—The Rhaetian Alps include the mountains between Como and Verona. Rhaetia, the ancient name of the country of the Grisons, and Raetico, a mountain in the Tyrol, are words derived from the Celtic Rait, which signifies a mountainous district.

Julian.—The Friuli Alps were called, in the

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* Ptolem. Geogr. Lib. 2, cap. 1. Strabo Geogr. Lib. 4.

time of the Romans, Alpes Juliæ, from the adjacent city and territory of Forum Julii, now Friuli; more anciently they were called Alpes Venetae, as Ammianus mentions. *

Carinthian.—The Alpes Carnicae have their name from the Carni, the people who anciently inhabited Carinthia, Kaernthen in German. The word is derived from the Celtic Carn, a heap of stones. The name Cornwall is from the same origin. †

Some of the people called Norici inhabited the mountains near Aquileia, as Strabo mentions, and that part of the Alps was therefore called the Alpes Noricae. Under the name of Noric Alps the Julian and Carinthian were also sometimes included.

According to other authors, the mountains to the east of the Rhaetian Alps were called the Alpes Noricae. The mountainous district, extending eastward to the source of the Sau, were called the Alpes Carnicae; and the mountains, from the source of the Sau to the coast of the Adriatic, were the Julian Alps.

Carriage Roads across the Alps.—Mont Cenis.—The Mont Cenis road is the principal passage over the Alps on the west. It is always kept in order so as to be passable for carriages; in winter the carriages are placed upon sledges.

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* Ammian. Marc. L. 31.

† See Adelung's Mithridates.

The Col de Tende.—Another carriage road over the Alps is by the Col de Tende, on the road from Nice to Turin. The word Col signifies a mountain; Colmo is used in the same sense; Colmo d'Ucello is the Vogel Berg near Saint Gotthard; the Spleugen or Urschler Berg is called, by the Grisons Colmen del Orso.

Intended Road from Nice to Genoa.—Great roads serve to keep the distant provinces under command by placing them within reach of troops; roads were therefore a part of the military system of Bonaparte, as they had been with the Romans. From Nice to Carrara, the face of the Apennines is so much inclined, so rugged, and so close to the sea, that a road cannot be made along the face of the mountains without vast labour and expence. Bonaparte had begun to execute this road, called Le Chemin de la Corniche; it was to proceed along the coast from Nice to Genoa, and from that by the gulf of La Spezia, which he intended to be the great port for his navy in the Mediterranean. From La Spezia the road was to proceed to Tuscany. All that is executed of this great enterprise is the way from Nice to Menton, a distance of thirteen English miles, which is formed into a carriage road.

Il Sempione.—The third carriage road to be mentioned is by the Simplon on the road from Milan and Duomo d'Ossola to Geneva. This road

was made practicable for carriages by Bonaparte. Evelyn, in 1646, mentions passing the Alps by the Simplon with mules. Both the Mont Cenis road and the Simplon are in the dominions of the King of Sardinia, by whom they are kept in repair.

Road by Trent.—The fourth carriage road is the road from Verona by Trent to Innspruck and Munich.

Road by Ponteba.—The fifth is the road by Ponteba from Friuli to Klagenfurth and Vienna.

Road by the Head of the Adriatic.—The sixth is the road from Trieste to Venice.

Paths not passable by Carriages.—There are other passages that are practicable for foot-passengers and mules, but not for wheel-carriages. Some of these are the following:

Mont Genevre.—The way from Susa, up the Val d'Houlx, over the Mont Genevre to Briançon, and Embrun on the Durance.

Little Saint Bernard.—The way from Aost, over the Little Saint Bernard and down the Arve to Geneva.

Great Saint Bernard.—The way from the east end of the lake of Geneva, by Martigny, over the Great Saint Bernard, to Aost, anciently called Salassorum Augusta Praetoria.

The road by the Great Saint Bernard, though not passable by wheel-carriages, has given passage to great armies.

Passage of the French Army.—In spring 1799 Lannes passed into Italy over the Great Saint Bernard, with 45,000 men and 60 pieces of cannon. They were filing over during five days. He had previously occupied Aost; Bonaparte, then consul of the French republic, was commander-in-chief. The battle of Marengo was fought afterwards, in the same year.

Pass of the Saint Gotthard.—The last of the passes we shall mention is the way by Mount Saint Gotthard, which proceeds from Bellinzona at the head of the lake Maggiore, up the Val Leventina, over the Mount Saint Gotthard, and descending the valley of the Ruess to the lake of Lucern.

The Romans had several military roads across the Alps, which are mentioned in the Itinerary, or Road book, published by an ancient author of the name of Antoninus.* One passed from Susa to Embrun, one by the head of the lake Maggiore, one by Trent, and several others.

Pompey made a road across the Alps, which some suppose to have been by the Mont Cenis. †

An inscription published by Gruter, said to be in the Friuli Alps, notifies that Julius Cæsar formed

* See L'Histoire des Grands Chemins de l'Empire Romain, par Bergier, nouv. edit. 1736.

† Per eas (Alpes) iter aliud atque Hannibal nobis opportunius patefeci. Sallust. fragm. See also Appian.

one of the ways in the Alps into a carriage road, or strada carrozzabile, as it is termed in Italy. *

Constantine, coming from Gaul to attack Maxentius, in Italy, crossed the Alps by the Mont Cenis.

On the 28th of April I left Turin for Chambery by the road which crosses the Mont Cenis.

This road has long been the principal communication between the middle of France and Italy, and is called, by the Italians, the Strada Romana, being the road frequented by the English and French, and the greatest number of travellers who visit Rome.

Hannibal.—Grosley produces strong arguments to shew that Hannibal passed the Alps by the Mont Cenis. †

Simler ‡ is of opinion that Hannibal's passage over the Alps was by the Mont Saint Bernard. Folard and D'Anville maintain, that his route was by Briançon and the Mont Genevre.

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* c . julius . caesar .
viam . inviam . solert . s . et .
impendio . rotab .
redd .
Corpus . inscript . Jan . Gruter . p . CXLI . 1 .

† Grosley, Observations sur l'Italie.

‡ Commentar. de Alpibus, by Simler, minister of the church of Zurich in the sixteenth century.

Telegraphs.—During the reign of Bonaparte there was a line of telegraphs over the Mont Cenis, extending from Paris to Milan.

Valley of the Dora.—After Rivoli, at twelve miles from Turin, the road enters the narrow valley in which the Dora runs between high hills of gneiss, or micaceous shistus.

Fruit Trees.—Fruit trees are cultivated, apple, pear, cherry, and some peach trees; and the large-fruited medlar, grafted upon hawthorn.

Walnut Oil.—There are many walnut trees, and the walnuts are pressed in a large stone, with two cavities, in order to obtain oil, (huile de noix,) which the country people use with their food.

Susa.—At Susa, anciently called Segusium, is an ancient Roman arch, erected in honour of Augustus, by Marcus Julius Cottius, the son of King Donnus, and præfect or governor of Susa, and several neighbouring cities; and by these cities themselves, as appears from the inscription published by Maffei. *

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* The following is the inscription as given by Maffei, in his Verona Ill. parte prima, p. 357.

imp . caesari . augusto . divi . f . pontifici .
maximo . tribunicia . potestate . XV . imp . XIII .
m . julius . regis . donni . f . cottius . praefectus .
civitatum . quae . subscriptae . sunt . segoviorum .
segusinorum . belacorum . caturigum . medullorum . tebaveorum . adanatium .

A view of the arch is also published by Muratori,* with a copy of the inscriptions, on both sides of the building; another view of the arch is in the Theatrum Sabaudiae, a work which contains engravings of the principal cities and castles in Savoy and Piemont. †

Diligence.—The heavy diligence, in which the passengers and baggage are conveyed from Turin is left at Susa, and the passengers proceed in a lighter coach drawn by six mules; the baggage is put into a separate carriage, a waggon also with six mules.

In winter, the diligence that proceeds from Susa over the mountain is on a sledge. We left Susa on the morning of the 29th of April. After Susa the road begins to ascend.

New Road.—Much of this road was made nine years ago by Bonaparte. Formerly the carriages, that were to be conveyed over the mountain, went up the valley from Susa, and at the head of the valley, at Novalese, were taken to pieces, and carried over the mountain on the backs of mules, from Novalese

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savincatium . egdiniorum . veaminiorum . venisamorum . iriqrum .
esubianorum . ovadiavium . et . civitates . quae . sub . eo . praefecto . fuerunt .

* Muratori, Novus Thesaurus Inscriptionum.

† Nouveau Theatre de Piemont, et de Savoie, 2 vol. fol. Amsterdam, 1725.

to Lanslebourg, a distance of 12 English miles. Travellers being under the necessity of quitting their carriage, were either carried in chairs or rode on mules over the mountain. For those who chose the first mentioned mode of conveyance, each traveller was carried in a chair by two men, other two men following to relieve the carriers; persons of a larger size were obliged to have more carriers. The chairs were of straw with low backs, two arms, no feet, a board hanging by cords to support the travellers' feet. The seat was of bark and ropes twisted together, and had two poles fixed to it, which the men carried by leather straps passing over their shoulders. These were the modes of conveyance from Novalese to Lanslebourg in 1765, as Lalande describes; but these expedients are now laid aside, the whole way being good for wheel-carriages, except in winter, when a sledge is required.

Novalese, the post after Susa, is 2741 English feet above the sea, according to Sir G. Shuckburgh's measurement in 1775.* Three hours after leaving Susa there are larch trees, Scotch fir, (Pinus silvatica,) and spruce fir, (Pinus abies.) Some of the larches are now on the 29th April amongst the snow.

Workmen who clear away the Snow.—Small

* See Sir George Shuckburgh's paper in the Philosophical Transactions of the Royal Society of London, 1777.

houses are placed at a short distance from each other on the side of the road, inhabited by the workmen, called cantoniers, who are constantly employed to clear away the snow, and keep the road in order. The number of these houses is about 26, and the number of workmen 50. These houses also serve as places of refuge for travellers in stormy weather. Four hours after leaving Susa, we came to a height where old snow is lying.

The rock is micaceous shist, and the roofs of the houses are covered with flags of this rock, an inch thick.

Toll.—Near the summit, at the boundary between Piemónt and Savoy, a toll is paid; every carriage with one horse pays a sum equal to five shillings, and five shillings for every additional horse.

Hospice.—The highest point of the road over Mount Cenis is 6778 English feet above the level of the sea,* and near it is the Ospitale, with a post-house, and quarters for the accommodation of troops that pass this way over the mountain, from one part of the King of Sardinia's dominions to another.

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* The highest point of the Simplon road is 6453 English feet. The Great S. Bernard at the Hospice 7960 English feet, S Gotthard 6790 English feet. The lake of Geneva 1230 feet. The height of Turin above the sea is 941 English feet. See the table of heights in the Appendix.

There are also a few monks, whose occupation, before the construction of the new road, was like that of the monks on the Great Saint Bernard, to relieve travellers in stormy weather. For this purpose, they had dogs that they sent out in the night.

The assistance of the monks has now become unnecessary on the Mount Cenis, as the houses of the men who work on the road are so near each other, that the cries of a strayed traveller can be heard, and the workmen are ready to give assistance.

Near the Ospitale is some plain ground and a small lake surrounded by heights. The stream which issues from the lake is called the Cenisella, and runs into the Dora Ripuaria at Susa.

After the Ospitale, there was snow four feet deep, which had been cut through to allow passage for carriages, and it was necessary to have the snow cleared away before the wheels to enable our carriage to proceed. The workmen use a sharp-pointed hoe for this purpose.

Winds.—La Tourmente.—A very violent wind blows on Mount Cenis, most frequently in November. It is called la Tourmente. Foot passengers and mules are sometimes blown over by it into the valley, and lost in the snow. Another violent wind on Mount Cenis is called la Lombarde, blowing from the south.

Snow Marks.—There are posts in some places by

the side of the road, marked with lines and numbered at the height of one, two, and three fathoms, to shew the depth of the snow.

Before Lanslebourg the descent is rapid, and the road on this descent is laid out in a zigzag direction.

La Ramasse.—Formerly at this place, and at the season when the descent was covered with ice, travellers descended on a sledge along an inclined plain for a considerable distance with great rapidity. This descent was called la Ramasse, and the traveller was said se faire ramasser, to have himself thrown over and picked up after his fall. When the sledge arrived near the foot of the descent, the conductor, who went in the sledge with the traveller, threw himself towards the back of the sledge on the traveller to prevent the traveller from being thrown out when the sledge stopped. The conductor had a pole, and there were chains which the conductor let out to retard the motion. The sledge descended three miles in seven minutes. Lalande relates a story of a countryman of ours, who was so much amused with this exercise that he staid a week at Lanslebourg, and had himself slid down two or three times a-day. A similar taste has lately prevailed amongst the Parisians, who amuse themselves by descending on wheels along inclined planes, from the artificial elevations called montagnes.

There is some pretty good timber of larch and spruce fir on the way going down to Lanslebourg.

The passage over Mont Cenis from Susa to Lanslebourg is about 20 English miles.

Lanslebourg.—The small town of Lanslebourg is situated in a deep valley. The stream which runs by it drives a forge hammer for making hoes.

Forge.—The forge is blown by means of water descending through two pipes into a trunk. The hammer is of cast-iron, made at a furnace some leagues distant. There is also a saw-mill. The river is frozen two or three months in the year, so as to stop the mills.

By reason of the position of Lanslebourg, in a deep valley, with high mountains to the south, the sun, it is said, does not shine upon it from the end of November to the 17th of January.

In this Alpine village we found a small coffee-house, kept by an Englishwoman from Southampton, who had married a native of the town.

Strata.—The subsoil at Lanslebourg consists of water-worn gravel, and, after Lanslebourg, the rocks are white primitive gypsum, micaceous shistus, and some calcareous shistus.

The road from Lanslebourg to Montmeillan, near Chambery, a distance of 65 English miles, follows the course of the river Arc, and then of the Isere, and is confined with mountains on each side.

After Lanslebourg the river runs in a deep chasm of the micaceous shist. The steep banks of the

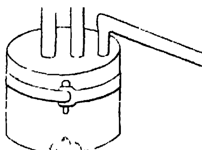
Water bellows used in the forges of Tivoli and Lanslebourg:

B Pipe by which the current of air passes to the forge. p 455 and p. 200 II.

Vertical Section.





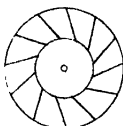


15 feet

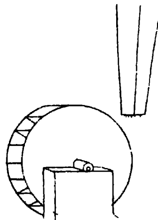


Water mill wheels used at Pistoja Tivoli and Rome.
p 243 244 p 455 & p 476

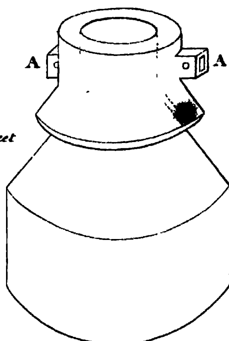
5 feet



Section



ncient mill stones in the museum at Parma:
upper stone was moved by a bar passing through A. p 61 II



Horizontal water wheel near Cesena p 27 II



Section of the mill stones





Lizars Sculp Edin^r

Edinburgh Published by A. Constable & Co 1820

stream are covered with Scotch fir, (Pinus silvatica,) not of a great size, and spruce fir, (Pinus abies.)

Primitive gypsum of a bright-white colour occurs some miles after Lanslebourg.

Fort.—A little farther on, the King of Sardinia is building a fort to protect the pass through which the road goes. Near this, on the right, is a cascade of water falling over rocks, interspersed with silver firs, and many similar waterfalls are seen as we proceed.

Larch.—On the Mont Cenis the larches were in flower on the 29th of April, but not in leaf. When we descend, and get within an hour of Saint Michel, the larch and birch is in leaf, and, at this height, there is no longer any snow lying.

We slept at Saint Michel the second night after leaving Turin.

Slate.—At Saint Michel, and onwards to Saint Jean de Maurienne, the roofs of houses are covered with an excellent thin blue slate, the produce of the neighbouring clay-slate mountains. The roofs are high pitched, and no longer in the Italian form.

Country People.—The broad-faced good-natured appearance of the country people in Savoy is an agreeable change from the darker countenance of the people on the Piemont side of the Alps. Highway robberies, which sometimes occur on the other side, are much less frequent in Savoy.

From this part of Savoy, between Lanslebourg

and Chambery, many of the people go to Paris, where they gain their livelihood as porters and water carriers, and the boys as chimney-sweeps. On account of these poor occupations, the appellation Savoyard in Paris has come to be used as a vulgar term of contempt.

Bonnet Rouge.—The red worsted cap, generally worn by the country people of this part of Savoy, was the bonnet rouge, adopted by the revolutionary Jacobins of Paris, as an emblem of the poorest class of the community.

French is the language of the country people in Savoy. The names of the towns and villages also are mostly French. In some parts on the borders of Dauphiny the people speak Romanish, or Romance language, something like that spoken in the country of the Grisons. *

S. Jean de Maurienne.—Saint Jean de Maurienne is in a narrow valley, with beautiful little portions of cultivated ground, orchards, and vineyards, with vines on props two feet in height. This mode of cultivating the vine, which is the only one followed in Burgundy, Champagne, and other parts of France, in Austria and Bohemia, is not met with in Italy, where there is no ground appropriated exclusively to vines; the vines in Italy are planted on the edge of the corn fields, and trained upon trees.

* See Adelung's Mithridates.

Limestone.—The rocks are precipitous all around, and consist of limestone, which appears to be transition limestone.

Water of the Arc.—The water of the river Arc at S. Jean de Maurienne is muddy, and looks very black. It is, however, used by the people for drinking, after it has been set to deposit for twelve hours, and become clear. It is snow water at this time. At seasons when the snow does not melt the water of the river is clearer.

The small village of Aiguebelle is beautifully situated on the Arc, at the head of a small plain, surrounded by hills. The Arc is here broad, and deposits much gravel.

Before Montmeillan for several miles, and along most of the road which we have travelled to-day, there are many fruit trees now in flower, on the 30th of April, apple, pear, cherry trees; and walnut trees, with their male flowers.

Five miles below Aiguebelle, the Arc, whose course we have followed from Lanslebourg, runs into the Isere.

Isere.—The Isere at Montmeillan is of considerable breadth.

At Montmeillan, and some miles before Chambery, there are seen near the road mountains apparently 800 feet high above the valley, their upper part composed of strata, nearly horizontal, probably limestone. Snow is seen on some of the hills.

House of Madame de Warens.—A mile from Chambery, along a rural footpath at the Charmettes, is the house of Madame de Warens, where she gave an asylum to J. J. Rousseau.

Saint Francois de Sales.—At Annecy, 25 miles from Chambery, is the tomb of Saint Francois de Sales, a native of Savoy, who died at Annecy at the age of 56 in 1622, one of the less ancient saints on the Roman Calendar. The Pope occasionally adds to the names on the Calendar, and, in 1818, the canonization of a deceased princess of the house of Savoy was in progress.

Jean Jacques Rousseau, who was not at all a saint on the Roman, but a distinguished hero or demigod on the Calendar of the French Revolutionists of 1795, resided for some time at Annecy, as he himself relates.

Between Chambery and Geneva the country consists of cultivated hill and dale. Fruit trees in flower, walnut trees, vineyards of short vines on props.

Gypsum as Manure.—A labourer was sowing powdered gypsum on a clover field. The gypsum is also sometimes employed in this country as a manure for hemp and oats.

The road from Chambery to Geneva is rough, being made with large stones.

Calcareous tufa is used in building at Frangy.

Geneva.—Geneva now forms a part of the Swiss

confederacy, being one of the three cantons added to Switzerland by the Congress of Vienna in 1815. These three new cantons are the canton of Geneva, the canton de Vaud, and the canton of Neuchatel.

Calcareous Grit.—The houses of Geneva are of calcareous sandstone.

On a house in the town is inscribed, Ici est né J. J. Rousseau; on another, Ici est né Charles Bonnet.

Rock of Mont Blanc.—At Geneva, in the rich and instructive collection of minerals of Professor Jurine, I saw specimens of the rock which composes the summit of Mont Blanc, which differs entirely in its appearance from granite, and is considered as a distinct species of rock.

They are now forming a botanic garden, of considerable size, at Geneva, under the inspection of the distinguished professor Decandolle.

Models.—In one of the suburbs of Geneva the artist Troye resides, who makes models in relief of different parts of Switzerland for sale.

One of these models represents the country including the lakes of Geneva and Neuchatel, and is on a scale of a quarter of an inch to a mile. The models that represent Mont Blanc and other less extensive districts are on a larger scale.

It is now the beginning of May, but the snow was not melted sufficiently to render the roads con-

venient for visiting Chamouny, near the foot of Mont Blanc. The months of July and August are best suited for that excursion.

Fernex.—Five miles north of Geneva, and two miles from the lake, is the chateau of Fernex, pronounced Ferney, once the residence of Voltaire. It is a neat country house, of a moderate size, beautifully situated, with the Jura hills to the north. The proprietor said he was annoyed by the visits of the curious, and with some difficulty granted permission to see the saloon and bed-room, which are hung with the prints and pictures, and furnished as when Voltaire lived. The bed-curtains are almost entirely gone, his admirers having taken away shreds of them to keep as relics.

I returned homewards through France, and from Geneva proceeded to Lyons.

La Perte du Rhone.—The quantity of water in the Rhone is much more considerable after its issue from the lake of Geneva, and after it is joined by the Arve, than it is some miles below; the water goes away by the crevices of the limestone. Near the Pont de Bellegarde, twenty miles from Geneva, on the road from Geneva to Lyons, the Rhone thus diminished passes for some hundred feet under a cover of limestone strata, and then emerges; when there is much water in the river part of the water passes above these limestone strata.

This circumstance respecting the Rhone was spoken of before.*

Bridges.—Lyons contains 230,000 inhabitants. The stone bridge over the Rhone at Lyons, built about the year 1318, was formerly narrow, and has been widened. It is nearly 1000 feet over. The other bridge over the Rhone, Le Pont Morand, so called from the name of the architect, is of wood, and was constructed 40 years ago.

The Rhone is rapid at Lyons, and, nevertheless, is sometimes frozen over, as in 1789, the cold of the winter at Lyons being considerable on account of the inland situation.

Boat Mills.—There are several boat mills in the Rhone at Lyons moored to the bank by chains and stayed out by beams, the boat containing the baths has the water pumped up by a water-wheel put in motion by the stream; the baths are, in other respects, like the floating baths at Paris.

The Soane has little current.

Of the bridges over the Soane at Lyons two were built or renewed during the reign of Bonaparte: one of these is of stone.

Pit Coal.—Pit coal is brought to Lyons by water carriage, from the Rive de Gier, a place situated on the Gier, which falls into the Rhone fifteen miles below Lyons; S. Etienne, celebrated in

* Page 23, Vol. I.

France for the manufacture of cutlery and edge-tools, is near the Gier. Pit-coal is much used for fuel by the poorer classes at Lyons, fire-wood being dear. Pit coal is used in the air-furnaces of the cast-iron founderies, of which there are several at Lyons. These founderies, which are established in a workman-like manner, are employed in making machinery. They get the cast-iron from Burgundy.

Silk Weaving.—The manufacture in which Lyons excels is the weaving of velvet; flowered silk; brocades, called, in French, etoffes brochées; gold stuffs, with flowers in silk, which are sent to Germany and Hungary for women's caps, and chiefly to Turkey. They employ the organzin silk of Piemont for the warp or longitudinal threads of the web. The trames or silk for the weft or transverse threads of the web is not so strong nor of so high a price as the organzin, and comes from Provence, and some of it from Dauphiny.

Old Clock.—A curious old clock in the cathedral of Lyons, marking the hours counted from sunset, has been already mentioned. *

Ancient Roman Mosaic.—An ancient Roman mosaic pavement, about 15 feet square, has been freed from the earth that covered it, and is to be seen in its original situation at Lyons. The mosaic

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* Page 142, Vol. I.

represents a race in a circus, a subject which is figured on another ancient mosaic of the time of Trajan at Italica, near Seville, in Spain. *

Ancient Aqueduct.—There are considerable remains of the arcades of a Roman aqueduct. The arches are of brick, the surface of the piers of opus reticulatum.

Granite Columns.—The tower of the church of Enay at Lyons, in the round-arched style, is supported by four columns of greyish granite. Their diameter is about four feet, and they appear to have been two long columns cut transversely. It is said they belonged to an ancient temple of Augustus.

In the time of Augustus, Lyons was considered as a place of great importance, on account of its central situation, and its position at the confluence of the rivers. Strabo, who wrote in the beginning of the first century, mentions Lyons as the second city of Gaul in point of magnitude; Narbonne was the first. Agrippa constructed roads which diverged from Lyons to different parts of Gaul, as Strabo mentions. † One of these roads went to Aquitaine, now Gascony, one to the ocean by Amiens, one to

* Description d'un pavé en mosaique découvert dans l'ancienne ville d'Italica, pres de Seville, par Alexandre Laborde a Paris, 1802.

† Strabonis Geograph. lib. 4.

the Rhine, and the fourth to Narbonne. Some of the other great public works of Agrippa have been mentioned before. *

Building Materials.—Mud Walls.—The houses in Lyons are built of calcareous stone, generally not squared. The walls are plastered over. Many houses in the adjacent country have their walls constructed of mud, called, in France, pisè. Some of these houses are of two floors in height.

The earth of which these walls of pisè are formed contains small gravel, and a very little clay, but is not tenacious and plastic like brick earth. This earth is introduced in layers between two boards, which are placed at the distance equal to the thickness of the wall; each layer is well rammed down.

The mud walls in Oxfordshire and Northamptonshire, made of the loamy gravel, which is formed by the weathering of the strata not far from the chalk, are of the same structure. Walls of this kind are termed by Pliny Parietes formacei, on account of their being formed in a mould, and he mentions that they were in use in Spain and Africa. †

Paintings.—The public collection at the Musée des Beaux Arts contains some pictures by esteemed masters, amongst whom are the great names of Ru-

* Page 340, Vol. I.

† Plin. Hist. Nat. Lib. 35, c. 48.

bens and Paul Veronese; the museum also contains some ancient Roman inscriptions and altars.

In the public library of 80,000 volumes are busts of the following eminent men natives of Lyons, and of the adjacent country: Lalande; Rozier; l'Abbé Raynal; Philibert de Lorme, who commenced the garden front of the palace of the Tuileries at Paris, and was architect of Henry II. Grypheus, the printer; Spon, the antiquary; the sculptors Coustou and Coysevox; Audran, the engraver; Bernard de Jussieu, the botanist; Bourgelat, the veterinarian; and Condillac, the metaphysician, were of Lyons.

The botanic garden is inconsiderable.

Theatres.—There are two theatres. The principal of these, le grand theatre, is handsome, but not of a great size, and was designed by Souflot; they were representing comic operas, comedies, and ballets. In the small theatre, le theatre des Celestins, melodrames and comic operas are played. This small theatre is frequented, as some of the minor theatres in Paris, by young men and venal beauties, and the adjacent square or place is peopled like the garden of the Palais Royal, a scene of indecency, but less splendid than in the capital.

Place de Bellecour.—The east and west sides of the spacious Place de Bellecour have a general resemblance to the front of the mint at Paris.

Steam-Boats not yet used in France.—At Cha-

lons sur Saone a steam-boat was lying in the river, but had not yet been in activity, although the river from Chalons to Lyons is well fitted for vessels of that kind. The current is moderate, and a boat, drawn by horses, goes regularly between Chalons and Lyons with passengers. There are two other steam-boats on the Soane, and one was lying at Paris, but none of them have begun to ply.

Cote du Riom.—The watermen on the Soane call the right side of the river Cote du Riom, (Royaume,) the side of the kingdom of France, the left side Cotè de l'Empire, the side of the empire of Germany.

The Soane was anciently called Arar and Sauconna; * of the latter its modern name is a modification.

Clos Vougeot.—On the left side of the road, between Nuits and Dijon, is seen the vineyard called the Clos Vougeot, which produces the most esteemed growth of Burgundy wine, and contains about 180 English acres, † inclosed with an eight feet wall. In the middle is a dwelling house and press-house. Twelve years is the greatest age to which this wine can be kept without losing its flavour. This

* "Et (Rodanus) emensus spatia fluctuosa, Ararim, quem Sauconnam appellant inter Germaniam primam fluentem, suum in nomen adsciscet." Ammian. Marcell. Lib. 1[illegible].

† Seventy five hectares.

inclosed vineyard formerly belonged to the Bernardine monastery of Citeaux, and has been sold two or three times since that community lost possession at the beginning of the Revolution.

Granite.—At Semur are rocks of red granite; neither the granite nor the neighbouring strata rise into high hills.

Monument by Costou.—In the cathedral of Sens is the tomb of the Dauphin, father of Louis XVI., with emblematical statues by Costou, the French sculptor, who died in 1777. This monument was taken down and concealed by the mayor of Sens, to preserve it from the destructive fury of the Jacobins, who demolished the recumbent figure that adorned the tomb of Cardinal Du Prat in this cathedral.

Bridges that were blown up.—Two arches of the bridge over the Seine at Montereau still bear the marks of the battle fought there between Bonaparte and the Austrians. These two arches were blown up, and are now replaced by arches of timber. The bridge at Moret, and two of the arches of the bridge over the Seine at Corbeil, were also blown up, and are in the same state.

English Stoneware.—At Montereau is a considerable manufactory of stoneware in the English manner, established several years ago by Mr Hall from Staffordshire.

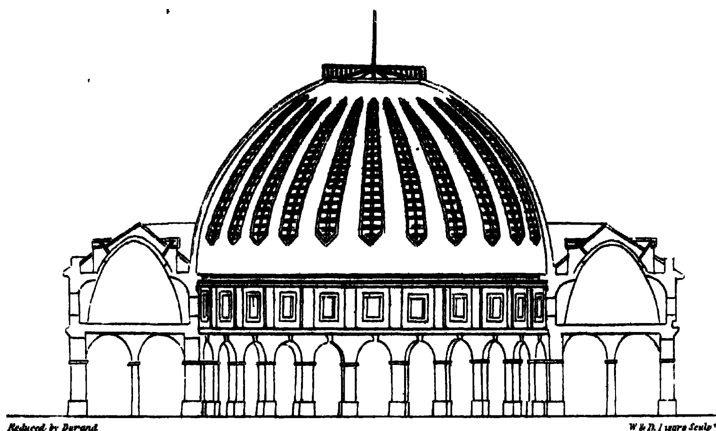
Canal de Briare.—At Moret the road crosses the

canal de Briare, which affords a communication for barges to pass between the Seine and the Loire.

Fontainebleau.—The English garden at Fontainebleau, formed by Bonaparte, has a great walk, a league in circuit, and a spacious riding-house, where he used to take the exercise of riding; at Fontainebleau he generally gallopped about on a small grey horse.

Forest of Fontainebleau.—The forest of Fontainebleau is twelve miles in length, and about the same in its greatest breadth. By the side of the great post road that passes through it are seen plantations of oak of 25 or 30 years old. In other places are large oaks of 50 feet in length of trunk, and two feet in diameter, and well grown beeches.

Essone.—At Essone the rivière d'Essone, which runs into the Seine, gives motion to a large gunpowder mill, a wool spinning mill for shawls and blankets, and to the cotton spinning mill, and calico printing manufactory of Oberkampf and Company. The principal establishment of Oberkampf and Company, for printing calicoes, is at Jouy, near Versailles, where they employ 1000 workmen. Their printed cottons, toiles de Jouy, are much esteemed in France. The manufacture was established at Jouy, and introduced from Mulhausen, near Colmar, by M. Oberkampf the father. Bonaparte, during his imperial dignity, went one afternoon to see the manufactory at Jouy, and presented



LA HALLE AUX BLEDS.

Built by Camus de Mezieres: with the timber cupola by Le Grand and Molinos which was burnt in 1808 P 215 II drawn on the same scale as the cupolas in Vol 1

Edinburgh Published by A. Constable & Co. 1820.

old Mr Oberkampf with the ribbon of the Legion of Honour.

Paris.—New Edifices.—I found Paris considerably altered from what I saw it eight years before, and it is altered for the better. The gardens of the Tuileries and Luxembourg are completed. Part of the new north gallery, intended to connect the Louvre with the Tuileries, is built, but the work is now suspended. The column in the Place Vendome has received its covering of bronze reliefs. The markets of S. Germain and others are neatly and commodiously placed under roofs, supported by stone arcades. A market is formed on the site of the Jacobin monastery; the place where the market now stands was occupied by the monastery of Jacobin monks of the Rue Saint Honorè; the Revolutionary club met in the hall of this monastery, and, from that circumstance, took the name of the Jacobin Club; the Jacobin monks were Dominicans, who acquired the name of Jacobins from the place of their first establishment in Paris, situated in the Rue Saint Jacques, at a church dedicated to Saint Jacques. The great hemispherical roof of the corn and flour market, la halle aux bleds, is constructed anew of iron ribs, and covered with sheet-iron; the interior diameter of this iron cupola is 131 English feet; the cupola was formerly of timber, and was burnt down about the year 1809. The edifice for the Exchange is built, but not yet finish-

ed. The bridge formerly called the Jena Bridge, now the bridge of the Ecole Militaire; the corn granaries, or greniers d'abondance; the fountain on the Boulevards, with Egyptian lions of cast iron, and other fountains; are edifices erected during the last eight years. Additions have been made to the gallery of minerals, and of zoology, and to the inclosures for living animals, in that grand establishment for the cultivation of the science of natural history, the Jardin du Roi. All these are works of the last years of Bonaparte's reign, and some of them were scarcely commenced eight years ago.

Pictures and Statues.—The picture gallery of the Louvre, though stripped of the great masterpieces of art, still contains many fine pictures. The pictures of Rubens, representing the actions of Henry IV. and Mary de' Medici, have been removed into the Louvre from the Luxembourg gallery, as also the life and acts of Saint Bruno, by Lesueur, and the views of the sea ports of France, by Vernet. The gallery of the Luxembourg is now occupied by a collection of the works of living French artists. The gallery of statues of the Louvre still contains the Borghese collection and some other excellent ancient works of sculpture. The picture gallery of the Louvre is quite full of pictures, the same extent of wall is covered as in its most flourishing time, and many of those who visit

the gallery are as much pleased now as when the masterpieces of Raphael and Correggio were there. The finest pictures have little attraction for common and uninstructed spectators. The holiday visitors of the gallery are persons who have not been taught to admire pictures in the grand style. But the lively and natural representation of some dreadful crisis and catastrophe is that which is best suited to affect the feelings of the most gross and uninstructed; for I have often remarked, on the days when the public were admitted into the gallery of the Louvre at its richest time, that the work which always attracted a crowd of common people, whilst the great masterpieces were passed unnoticed, was the picture by Claissens,* representing the Unjust Judge, condemned by Cambyses to be flayed alive, and undergoing that punishment. The same sentiment which attracts the people to an execution rendered this picture a favourite with the vulgar.

Shops.—The shops in Paris display a more plentiful stock of manufactured goods than in Bonaparte's reign, which may arise partly from importation and partly from the improvement of the French manufactures.

Insurance against Fire.—Houses are now insured against fire, an establishment for that purpose having been formed within the last eight years.

* Claissens was a native of Flanders, and flourished in 1498.

The houses insured are marked with the letters M. A. C. L. the initials of the words Maison Assurèe Contre L'incendie.

Corpus Christi day, the Fete Dieu, happened whilst I was in Paris, this year 1818. The ministers of government had magnificent chapels erected before their houses; the fronts of the houses were hung with tapestry; and the Dutchess of Angouleme and Monsieur, the king's brother, walked in the procession of their parish church of Saint Germain l'Auxerrois, carrying tapers. Ten years before this the ceremonies in the streets on the Fete Dieu were confined to the children, who asked the passengers for halfpence for their little chapels. At that time there were no religious processions on the streets of Paris. The law forbade processions on the street in every town in which a part of the inhabitants were of a different religion. The object of this law is to prevent the disturbance of the public peace, and the law still exists, but the processions are tolerated to gratify some of the princes.

APPENDIX.

Of the different kinds of Antique Marbles at Rome.—A list of some Foreign Books and Maps relating to Carniola, Italy, and the Alps.—A Table of Heights in Italy, the Alps, France, and some others.—Itinerary.—Table of the Population of Italy.—Table of the Population of different Towns in Italy.—View of the Geology of Italy; and Names of the Mineral Strata, marked by numbers in the Map.

Of the Marble, Granite, and Porphyry imported into Ancient Rome.—The many large columns of foreign marble and granite at Rome are amongst the remarkable remains of ancient magnificence, and vestiges of the seat of the most powerful empire that ever existed in Europe. Ravenna, which was the residence of Valentinian and Theodoric, also possesses some. At Venice there are some columns from the Levant. In the cathedral of Pisa there are columns of granite, and in some other places of Italy there are antique columns of foreign marble. But it is at Rome that by far the greatest quantity of marble columns are seen; many of them are employed in forming the colonades of the naves of the churches, and, in that situation, present a beautiful view, which is not to be seen in any other city.

The church of Saint Paul on the Via Ostiensis is the most magnificent in respect to the number and magnitude of the marble columns which separate the five porticoes or naves.

The number, magnitude, and variety of the ancient columns and marbles is admirable at this day, after they have been exposed to the action of time for 1800 years, and the Roman authors speak of the sumptuous magnificence of these objects when recently brought from the quarries. *

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* "Ad urbis nostrae miracula transire conveniat, et sic quoque terrarum orbem victum ostendere. Quod accedisse toties paene, quot referentur miracula apparebit. Universitate vero acervata, et in unum quemdam cumulum conjecta, non alia magnitudo exurget, quam si mundus alius quidam uno in loco uniretur. Computet in hac aestimatione qui volet marmorum molem, opera pictorum impendia regalia, et cum pulcherrima, laudatissimaque certantes centum domos, posteaque eas ab innumerabilibus aliis in hanc diem victis." Plin. Hist. Nat. Lib. 36, cap. 15.

"Nero extruxit domum in qua haud perinde gemmae et aurum miraculo essent, solita primum, et luxu vulgata." Tacit.

"Quid refert igitur; quantis jumenta fatiget porticibus?" Juven. Sat. 4.

"Deinde in ipsas domus impenditur cura, ut in laxitatem ruris excurrant, ut parietes advectis trans maria marmoribus fulgeant." Senec.

"Hi nempe oculi, qui non ferunt, nisi varium, ac recenti cura nitens marmor; qui mensam nisi crebris distinctam naevis; qui nolunt domi nisi auro pretiosa calcare." Senec.

The word Marble.—The word marble was applied anciently to stones, susceptible of polish, and distinguished by the beauty of their colours. * The word is now usually confined to denote stones composed of carbonate of lime, of an agreeable colour, and bearing a good polish.

There are no rocks of marble in the country near Rome. The Romans, therefore, in the time of their power, had recourse to the marble quarries of Carrara and of foreign countries, and chiefly to those in the eastern part of the Mediterranean, in order to adorn their buildings.

Pliny mentions, that the first marble columns were brought to Rome 50 years before the first consulship of Augustus, and the importation continued for about 200 years, as long as the city was in a flourishing state.

Columns from Mount Hymettus.—It was only 50 years before the first consulship of Augustus that the first marble columns were brought to Rome † by Crassus the orator, and he first employ-

* "Marmora dicuntur eximii lapides qui maculis et coloribus commendantur," Isidor of Seville, Orig. Lib. 16. c. 15. μαρμαρος or πετρος μαρμαρος signifies a stone with a white and shining surface, and is derived from μαρμαιρω to shine.

† "Columnas quatuor Hymettii marmoris aedilitatis gratia ad scenam ornandam advectas in ejus atrio (L. Crassus, orator) statuerat, cum in publico nondum essent ullae marmo-

ed marble columns in a private building. These columns were from Mount Hymettus, near Athens. He was reproached by the public opinion for this unusual magnificence.

Pentelican Marble.—Many of the ancient statues at Rome, according to the judgment of Visconti and other antiquaries, are of the white marble from Mount Penteles, near Athens. It is called, at Rome, cipolla, or statuary cipollino, by reason of the greenish veins that occur in it. Of the statues formed of this marble are the torso of the Belvedere and the muses of the Vatican. The Parthenon and other ancient buildings at Athens are of Pentelican marble.

Parian Marble.—Other antique Greek and Roman statues are of the marble of the island of Paros, as the recumbent Ariadne, called the Cleopatra of the Belvedere; the Mercury, called the Antinous of the Belvedere; the Diana and Stag of the Louvre; the Venus de' Medici is of Parian marble, of a smaller grain than the ordinary Parian; the Venus of the Capitol is of very beautiful and translucid Parian. *

Carrara Marble.—Others are of marble from

reae, tam recens est opulentia" Plin. Hist. Nat. Lib. 17, cap. 1.

* See Visconti, Museo Pio-Clementino; and his Notice des Statues du Musee Napoleon, à Paris, an. XI. (1802.)

Carrara, anciently called marble of Luni, as the statue of Antinous of the Capitol.

The marble of Hymettus and the Pentelican are mentioned by Strabo * and Pausanias.

The marble of which the Apollo of the Belvedere is formed is considered, by the marble-cutters at Rome, to be a Greek marble, though different from the Greek marble of which many other ancient statues are formed.

Pliny wrote 166 years after the first importation of marble, and remarks the rapid progress that had taken place in that period, from a simple and unadorned way of life to magnificence and extravagant expence. † In the reign of Diocletian, 240 years after the beginning of the importation of foreign marble into Rome, that importation had diminished considerably, for it appears that columns, taken from more ancient buildings, were employed in constructing the baths of Diocletian. But the largest of the two obelisks of the Circus Maximus was brought to Rome 30 years after Diocletian. Its removal from Egypt was begun by Constantine, and it was brought to Rome by the son of Constantine. For removing this, the largest wrought stone that has been moved in Europe, there existed sufficient mechanical skill

* Strabo, Geogr. Lib. 9.

† "Adeo mature a rectis in vitia, a vitiis in prava a pravis in praecipitia pervenitur." Plin. Hist. Nat.

at that period, although the arts connected with design had declined very considerably.

Scaurus, the step-son of Sylla, imported such a quantity of magnificent columns into Rome, and employed them so profusely in buildings, that they were not exceeded by the extravagant fabrics which Nero afterwards erected. *

Marble of Carystus in Euboea.—Soon after the time of Scaurus, Mamurra adorned his mansion with marble from Luni near Carrara, and from Carystus, now called Karesto, in Negropont. † He was the first who encrusted walls with thin slabs of marble. ‡ The quarries of the Carystian columns are mentioned by Strabo, who speaks of asbestos found in the same place, and woven into cloth. §

Black Marble.—In the year 680 of Rome, Lucullus employed a black marble, brought from an is-

* "Quis enim tantarum hodie columnarum atrium habet?" Plin. Hist. Nat. L 36, cap 3. "Non patiemur duos Caios, vel duos Nerones, ne hac quidem gloria famae frui, docebimusque, etiam insaniam eorum victam privatis operibus M. Scauri." Plin. Hist. Nat.

† Plin. Hist. Nat. l. 36, cap. 6.

‡ "Primum Romae parietes crusta marmoris operuisse totius domus suae in Cœlio monte, Cornelius Nepos tradidit Mamurram Formiis natum, equitem Romanum, praefectum fabrorum C. Caesaris in Gallia." Plin. Hist. Nat. l. 36, c. 6.

§ Strabon. Geogr. Lib. 10.

land in the Nile, and called Marmor Luculleum from his predilection to it. *

Synnadic or Phrygian Marble.—The marbles of Synnados in Phrygia, the cipollino of the moderns, is spoken of by Strabo and Statius. † This cipollino is a primitive and shistose marble, with particles of mica and green stripes, and is called cipollino, from the resemblance it bears to a leek (cipolla) by its colour and scales. ‡

Strabo mentions the quarries of white marble in *Paros*, § in *Proconnesus* near Paros, || and at *Mylassa* in Caria. ¶ He mentions quarries of variegated marble on the island of *Scyros*, east of Eu-

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* Plin. ibid.

† The quarries of Synnadic marble at Dokimia, in Mysia, are spoken of by Strabo in the following passage :—" On the other side is the village of Dokimia and the quarry of the marble called Synnadic marble by the Romans. At first only small blocks were extracted ; but now, by reason of the magnificence of the Romans, large columns of one stone are wrought. From its variegated colours this marble resembles alabastrites, so that, notwithstanding the great quantity of marble brought by sea to Rome, the slabs and columns of this marble excite admiration at Rome for their magnitude and beauty." The Geography of Strabo, Book XII.

‡ See p. 387, Vol. I.

§ Strabo, Lib. 10.

|| Strabo, Lib. 13.

¶ Strabo, Lib. 14.

boca,* on the small island of *Deucalion* near Larissa in the gulf of Salonica, and at *Hierapolis* near Laodicea; † from all these three, as well as from Carystus and Synnados, large columns were sent to Rome.

Marble of Rhodes.—Pliny mentions a marble with yellow veins got at Rhodes; to this marble he compares the stone called Lysimachus. ‡

The greatest number of the large antique Roman columns are of cipollino, of red Egyptian granite, and of the four kinds of marble known at Rome by the names of Marmo Greco, Giallo Antico, Pavonazzetto, and Porta Santa.

Marmo Greco.—Marmo Greco is a shistose and primitive marble, of a bluish white, containing mica.

Giallo Antico.—Ancient yellow marble is, in some degree, translucid. The modern yellow Siena marble is different, being opaque.

Pavonazzetto has purple veins.

Porta Santa has red veins.

The *Breccia Africana*, which has dark-coloured blotches and veins, is somewhat less frequent.

Lacedemonian Marble.—The Lacedemonian

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* Strabo, Lib. 9.

† Strabo, Lib. 13.

‡ Lysimachus Rhodio marmori similis est aureis venis. Plin. Hist. Nat. Lib. 37, 62.

marble mentioned by Statius * and by Lucian † is supposed to be the marble now called Verde Antico. But, according to Visconti, the Verde Antico was imported from Thessalonica.

There are columns of Verde Antico in the Lateran, but there are no columns of this marble of so large a size as the columns of granite, cipollino, marmo Greco, and Giallo Antico.

Rosso Antico.—The ancient red marble, *rosso antico*, of an uniform brick-red, occurs in the two marble bathing chairs, and in some busts and statues, but not in large columns.

Alabaster.—Of alabaster, or carbonate of lime in a stalactitical form, and translucid when cut into slabs of moderate thickness, there is an Egyptian statue at Rome; and two columns of this substance, about twelve feet high, were formerly in the vestibule of the Vatican library. This stone is called Alabastro fiorito, from the flowery form of its veins. The white alabaster, of which the small statues are made at Florence, is a different stone, being composed of sulphate of lime. The Derbyshire alabaster, of which there are inlaid columns in the hall at Keddlestone, is also sulphate of lime, but not of so pure a white as the Florentine.

* Dura Laconum saxa virescentia. Stat.

† Λακαινης λιθος. Lucian in his description of a bath.

Many other kinds of antique marbles, which occur more rarely, are met with in the ruins and in the collections of marbles sold by the marble-cutters at Rome.

Numidian.—Lepidus, in the year 676 of Rome, first employed Numidian marble. Numidian marble is mentioned by Statius, Juvenal, and Seneca. Some commentators consider the Numidian marble to be red porphyry.

Seneca speaks of the *marble of Alexandria;* of the *Thasian* from the island of Thasos, which is situated north of Lemnos in the Ægean Sea; of *Egyptian columns*, which, perhaps, are granite; and of *African columns.*

Some of the above named marbles are mentioned by Statius, and also the *white marble of Tyre and of Sidon*, green marble *from the Eurotas* in Laconia, and *Lybian.* Some of the above kinds and others are also mentioned by Juvenal, Martial, Vopiscus, and Julius Capitolinus. *

* "Pauper sibi videtur ac sordidus . . . nisi Alexandrina marmora Numidicis crustis distincta: nisi Thasius lapis, quondam rarum in aliquo spectaculum templo, piscinas nostras circumdedit . . . quantum statuarum, quantum columnarum est nihil sustinentium, sed in ornamentum positarum impensae causa? . . Quid loquar marmora quibus templa quibus domus fulgent? Quid lapideas moles in rotundum, ac laeve formatas, quibus porticus, et capacia populorum tecta

Egyptian Granite.—The columns of the portico of the pantheon, the Ionic columns of the Temple

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suscipimus? . . . Quid inter pueros et nos interest, nisi quod nos circa tabulas et statuas insanimus, carius inepti? Illos reperti in littore calculi laeves, et aliquid habentes varietatis Delectant. nos ingentium maculae columnarum, sive ex Ægyptiis arenis, sive ex Africae solitudinibus advectae porticum aliquam, vel capacem populi cœnationem ferunt. Miramur parietes tenui marmore inductos, et cum auro tecta perfundimus, quid aliud quam mendacio gaudemus? Scimus enim sub illo auro fœda ligna latitare." Senec. Epist. 115.

" . . . pandit nitidos domus alta Penates
Claraque, gaudentes plauserunt limina cycni.
Digna Deae sedes nitidis nec sordet ab astris.
Hic Libycus, Phrygiusque silex, hic dura Laconum
Saxa virent: hic flexus Conyx, et concolor alto
Vena mari, rupesque nitent, quis purpura saepe
Oebalis, et Tyrii moderator livet aheni.
Pendent innumeris fastigia nixa columnis: . . ." In the description of a dwelling-house in Stat. Sylv. Lib. 1.

" Sola nitet flavis nomadum decisa metallis
Purpura; sola cavo Phrygiae quam Synnados Antro,
Ipse cruentavit maculis lucentibus Atys:
Quasque Tyrus niveas secat, et Sydonia rupes.
Vix locus Eurotae viridis, cum regula longo
Synnada distinctu variat; non lumina cessant.
Effulgent Camerae, vario fastigia vitro
In species animosque nitent . .
Nil ibi plebeium: . ." In the description of the bath belonging to a dwelling-house in Stat. Sylv. Lib. 1.

of Concord in the Forum Romanum, and some others at Rome, are of large-grained red Egyptian granite, as are the obelisks, the largest wrought stones that exist in Europe. This red Egyptian granite, called, by the ancients, Pyrrhopoïkilon, on account of its variegated and red colour, and Syenite, because it was got in the quarries of Syena, * in Upper

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Idem (Tucca) beatus lautus extruit Thermas,
De marmore omni, quod Carystos invenit,
Quod Phrygia, sive Afra quod Nomas mittit
Et quod virenti fonte lavit Eurotas." Martial. Ep. 77, L. 9.

" Parte alia longis Numidarum fulta columnis
Surgat, et algentem rapiat cœnatio solem." Juven. Sat. 7.

" Cum domum Omuli visens, mirasque columnas porphyreticas, requisisset, unde eas haberet." Vopiscus in Vita Antonini Pii.

" Columnas centum Numidicas pedum vicenum ternum jussit Hostiensibus dari. Vopiscus in Vita Taciti Imperatoris.

" Villa eorum (Gordianorum) via Praenestina ducentas columnas uno peristylo habens, quarum quinquaginta Christeae, (Kaiesto in Negropont,) Claudianae quinquaginta, Numidicae pari mensura sunt. In qua Basilicae centenariae tres. Caetera huic operi convenientia, et Thermae quales praeter urbem, ut nunc nusquam in orbe terrarum." Julius Capitolinus.

See Alexandri Donati e societate Jesu Roma vetus et recens, Liber I. cap. 24.

And Biagio Garofolo de Antiquis Marmoribus.

* Συηνη, Strabo. Geog.

Egypt. Some other kinds of granite from the east occur amongst the remains of ancient art at Rome, but not so frequently as the red Egyptian granite. The Roman marble-cutters saw blocks of antique granite by means of an iron blade and emery, as calcareous marble is sawed by an iron blade and siliceous sand. The hardness of granite renders the operation of sawing it very tedious.

Elba Granite.—There are some columns of Æthalian, or Elba granite, at Rome and Pisa. It is small-grained, and called, at Rome, Granitello.

Syenite of Mineralogists.—The syenite of the two lions, at the ascent to the Capitol, differs from the granite of the obelisks, and is like the stone of which the Egyptian colossal head, now (1818) in the British Museum, is formed.

Basalt.—There are several ancient Egyptian sphinxes, and other figures, and labra, or bathing troughs, of a dull greenish basalt. Basalt is characterized by Pliny as resembling iron in hardness and colour; * it more especially resembles cast iron. Strabo mentions a quarry of millstones which were, perhaps, of basalt, at the Black Promontory in Ionia. †

Touchstone.—Pietra di Paragone, black touchstone, occurs in slabs and figures.

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* Ferrei coloris atque duritiei. Plin. Hist. Nat.

† Strab. Geogr. Lib. 4.

Porphyry.—The columns of porphyry at Rome are not nearly of so large a size as the large columns of granite. The urn of Constanza and the urn of Helena is each composed of a very large block of porphyry; and the great tazza or saucer-shaped reservoir in the rotonda of the Museo Pio-Clementino is one great piece of porphyry. Pliny* says that sculptors began to work in porphyry only in the reign of Claudius. Vopiscus mentions porphyry. The room in which the princes of the Greek empire were born was incrusted with porphyry, and the princes born in this room were called Porphyrogeneti. The name porphyry, or purple, applied to this stone was taken from the ancient purple dye, made of the shell-fish called Porphyrios, which was got near Tyre. † It is, therefore, supposed that the ancient dye was of the dull red colour, which this stone exhibits. A small grained greenish porphyry is sometimes found, but much more rarely than the red porphyry, amongst the remains of ancient art at Rome; it is quite different from the antique green serpentine.

Antique Serpentine.—The green antique serpentine, which occurs in pavement, is one of that class of stones called porphyry by the mineralogists.

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* Plin. Hist. Nat. 36, 11.

† Strab. Lib. 16.

Verde di Corsica.—In the Vatican there is a vase, which is probably antique, formed of the rock compounded of jade and schiller spar; this rock occurs near the magnesian serpentine in Tuscany and in Corsica.

Egyptian Breccia.—The Egyptian breccia, which occurs in some monuments at Rome, is a conglomerate, composed of hard siliceous stones.

A List of some Foreign printed Works which relate to Carniola, Italy, and the Alps, here arranged under the heads of; Carniola; Venice; Padua; Verona; Florence; Rome; History and Antiquities of the Middle Ages; Accounts of the Lives and Works of Italian Painters; History of Italian Literature; Topographical Descriptions of Italy; Natural History of Italy; Maps.

CARNIOLA.

1. A Description of Carniola, with drawings; Joannes Weichard VALVASSOR, Ehre des Erzherzogtums Krain, Laybach, 1689.

2. An Account of the Plants of Carniola, by Scopoli, the medical practitioner of the imperial mining establishment at Idria. *Joannis Antonii SCOPOLI,* philosoph. et med. doct. S. I. et R. M. Montanae civitatis Idriae physici, chem. et metallurg. professoris, supr. offic. min. ibid. assessoris, Flora Carniolica, Viennae, 1760.

VENICE.

3. Views of Buildings in Venice; Splendor invictissimae urbis Venetiarum clarissimus e figuris elegantissimis, earumque accurata enarratione et dilucida emicans: in duas partes distributus, in the Thesaurus Antiquitatum et Historiarum Italiae, cum praefationibus Graevii et Burmanni, Lugd. Bat. 1720.

4. The works of Justiniani, Bembo, and others, relating to the history of Venice, are in the 5th tome of the Thesaurus Antiq. et Histor. Ital.

5. Engravings of the Statues in Venice.—Statue di Venezia, di *Zanetti*, II. Vol. fol. 1740.

6. Account of the Plants that grow on the Sandy Islands which separate the Laguna of Venice from the Sea; Storia delle Piante de' Lidi, Veneti di *Girolamo Zanichelli*. Venet. 1735.

PADUA.

7. Some works relating to Padua are contained in the 6th tome of Graevii Thesaurus Antiquitatum et Historiarum Italiae.

VERONA.

8. Verona Illustrata del Marchese *Scipione Maffei* in Verona, 1732. Fol.

FLORENCE.

9. A Description and Engravings of the Statues and other Works of Art in the Gallery at Florence, Museum Florentinum, in several folio volumes.

10. The 7th tome of Graevii Thesaur. Antiq. et Hist. Italiae contains works on the history of Florence.

11. The natural history of Tuscany is described in Viaggi in Toscana di *Targioni Tozetti*, 1751. Another edition was published by the author in 1768.

12. On the Fossil Bones in the Valdarno; Memoria su alcune ossa fossili di mammiferi che s'incontrano nel Valdarno, dal professore *Nesti*, in the Annali del Museo di Firenze, Vol. I.

ROME.

Topographical Accounts of Rome.

13. *Sexti Rufi*, de Regionibus Urbis Romae. *P. Victoris*, de Regionibus Urbis Romæ. Both of these are lists of the public and remarkable fabrics, and of the number of houses in the XII. regions of Rome, and are published along with the commentary of the Augustinian monk Onofrio Panvinio of Verona, in the Thesaurus Antiq. Romanarum, collected by Graevius. They are contained also in Nardini's description of Rome.

Rufus, of whose list a part is lost, lived in the time of Valentinian and Valens, and Victor is supposed to have lived about the same period.

14. An account of Rome, written in the thirteenth century, published in Montfaucon's Diarium Italicum. According to Donato,* this account is supposed to be the work of Martinus Polonus, who lived in 1250, and was penitentiary to Innocent IV. The work is remarkable for the absurd fables it contains. "In the time of Tiberius there came to Rome two young men, philosophers, named Praxiteles and Phidias;" and the sequel relates how the marble colossal statues at Monte Cavallo were erected in honour of these philosophers.

15. Urbis Romæ Topographia *Batolomaei Marliani* ad Franciscum Regem Gallorum, ejusdem urbis liberatorem invictum, cum privilegio Pauli III. (Farnes.) Pont. Max. Romae, 1544. Small fol., with some well executed large letter-press cuts.

16. *Blondi Flavii* Forliviensis de Roma triumphante, Lib. X. priscorum scriptorum lectoribus utilissimi ad totiusque Romanae antiquitatis cognitionem pernecessarii, apud Froben, Basiliae, 1559.

17. *Blondi Flavii* Forliviensis Romae instauratae, Lib. III. Basiliae, 1559.

18. Roma Antica di *Famiano Nardini* alla san-

* Donat. de Urbe Roma, liber 1. cap. 19.

tita di N. S. Alessandro VII. in Roma, 1666. This description is one of the most complete, and contains much erudition.

19. *Alexandri* DONATI e societate Jesu Roma vetus ac recens utriusque aedeficiis illustrata, editio nova, Amstelaedami, 1695.

20. Accurata e succinta descrizione topografica delle Antichita di Roma dell Abate *Ridolfino* VENUTI, cortonese presidente all Antichita Romane, 1763, quarto. This work was published after the author's death; it is useful to persons who visit the antiquities of Rome, and contains descriptions of some objects which have been discovered, or more accurately studied, since the publication of the works of Nardini and Donati, but wants the illustrative passages of ancient authors, which are found in Nardini and Donati.

21. Description of the Country near Rome.—Descrizione di Roma e dell Agro Romano dal *P.* ESCHINARDI, accresciuta dall' Abate Venuti, 1750.

Perspective Views of Ancient Buildings of Rome; 22. Gli Antichita di Roma, di *G. B.* PIRANESI, 4 vols. large fol.

23. Vedute di Roma, di *G. B.* PIRANESI, small folio.

24. Views of Ancient Roman Sepulchres; Gli Antichi Sepolchri, di *P. S.* BARTOLI.

25. *Architectural Views of Roman Arches.*—Architettura di *Sebastian* SERLIO Bolognese, in sei

libri divisa, in Venetia, 1663. Fol. In the third book are drawings of several ancient buildings, amongst which are the following ancient Roman arches:

Arch of Trajan at Benevento.
—— of Trajan at Ancona, built of very large blocks of marble.
—— of Pola in Istria, with the inscription, L. Sergius, L. F. Lepidus Ædilis trib. mil. Leg. XXIX.
—— of Septimius Severus, at Rome.
—— of Constantine, at Rome.
—— of Titus; a design of the arch restored.
—— of the goldsmiths, at Rome.
—— of Janus, at Rome.

The Arco di Portogallo, an arch of Trajan, formerly in the Corso at Rome, now demolished, is figured in the Museum Capitolinum.

The three that follow are drawn in Serlio's work.

Arch of the Gavii at Verona, with the inscription, C. Gavio, C. F. Straboni.
—— of the Via de' Leoni, at Verona.

Gateway consisting of two equal round arches, at Verona, considered, by the Marquis Maffei, to be the gate of the forum of justice.

The ancient gate of the city of Verona in the Corso, also with two equal-sized arched gateways, is figured by Panvinius. It is of the year 265. The inscription of the Emperor Galienus on this gate is published by Gruter.

The Porta Portese gate of Rome, which also had two equal gateways, and over them an inscription of Arcadius and Honorius, is figured in the Roma Antica di Nardini, Lib. I. cap. 9. This gate was demolished in 1643.

There are likewise views of other ancient buildings in Serlio's work, and in the Architettura di Palladio.

The arch of Susa is figured in the Theatrum Sabaudiae, and in Muratorii Thesaurus Inscriptionum.

The arch of Rimini in the Vues d'Italie par Clochar, 1809, and in other works.

The arch of Tripoli in Africa is amongst the drawings collected by Bruce the Abyssinian traveller.

Architectural and Measured Drawings of Ancient Roman Buildings.

26. Il quarto libro dell' Architettura di Andrea Palladio nel quale si descrivano, e si figurano i Tempii Antichi, che sono in Roma; et alcuni altri, che sono in Italia, e fuori d'Italia; in Venezia, 1642. Fol. This work of Palladio contains drawings of the Pantheon, the church of Santa Constanza, the Corinthian hexastyle front of the temple at Assisi, which is of the same form and dimensions with the Maison Carrèe of Nismes, the small temple of Clitumnus, and many others, printed from letter-press cuts, engraved on large blocks of wood, supposed to be pear tree, and with some crossed lines, which

the artists of the present day, who make small cuts of box-wood, find it difficult to imitate. Large cuts, formed like those in Palladio's book, are mentioned above at No. 15, and the large cuts of pear tree, representing the triumphs of Maximilian, and engraved about 1510, in the time of Albert Durer, exist in the Imperial Library at Vienna.

27. Les edifices antiques de Rome dessinés et mesurés sur les lieux, par *Antoine* DESGODETZ, 137 planches, composé par ordre de Colbert, et publié en 1682. Large folio. It contains drawings and details of the Pantheon, Coliseum, theatre of Marcellus, church of Santa Constanza, and others. The dimensions are given with much precision and clearness.

28. *Account of the Removal of the Great Obelisks.*—Della trasportatione dell' obelisco Vaticano et delle fabriche di nostro signore Papa Sesto V. fatte dal cavaliere *Domenico* FONTANA, architetto di sua Santita, in Roma, 1590. Fol.

29. Account of the mechanical inventions of ZABAGLIA, who erected the Obelisk of Monte Citorio, published by Bottari.

30. *Account of the Statues at Rome.*—Delle Statue Antiche, che per tutta Roma, in diversi luoghi, e case si veggono, di Messer *Ulisse* ALDROVANDI. In Venetia, 1558. Small octavo.

Aldrovandi describes a great part of the antique statues and sculptures in high relief, as wanting the

head, arms, or feet. During the many centuries that the statues lay neglected, these prominent parts were broken off and lost. Since the time of Aldrovandi most of the statues have been restored in the parts that were deficient; in some the restorations are the work of modern artists, and, in other cases, antique heads have been adjusted on antique statues to which they did not originally belong. The restorers have sometimes added emblems according to their own fancy. These restorations render the explanation of the meaning of some antique sculptures more difficult than when the sculpture was in its mutilated state, and also lead the curious to admire for antique the parts of a statue that are modern.

Descriptions and Delineations of Ancient Statues, Bas Reliefs, and Paintings.

31. Museum Capitolinum, Romae, folio, 1750, 1775. The descriptions in the first volume of the Museum Capitolinum are by Bottari, chief librarian of the Vatican library, who died at 86 in 1775. The fourth volume is by Foggini, librarian of the Corsini library.

32. Il Museo Pio-Clementino descritto da Giambatista Visconti prefetto delle Antichita di Roma. 6 vol. large fol. 1782. Visconti succeeded Winkelmann, as prefetto dell' Antichita, after Winkelmann's death, in 1768.

33. Engravings of Bas Reliefs and others on the Arch of Constantine at Rome; Admiranda Romanarum Antiquitatum ac veteris sculpturae vestigia anaglyphitico opere elaborata ex Marmoreis exemplaribus quae Romae adhuc extant; a *Petro Sancte* BARTOLO delineata incisa. Notis *Jo. Petri* BELLORI illustrata. Bellori was librarian to Christina Queen of Sweden.

Engravings of Bas Reliefs on the Column of Trajan, and on that of Antoninus;

34. Colonna Trajana scolpito con l'historie della guerra Dacica prima e la second expeditione contro il re Decebalo; disegnata et intagliata da *Pietro Santi* BARTOLO, con l'espositione d' Alfonso Ciaccone; data in luce da Giacomo Rossi in Roma. Oblong or transverse folio.

35. Columna Antoniniana Marci Aurelii Antonini Augusti rebus gestis insignis, Germanis simul et Sarmatis gemino bello devictis, ac utriusque belli imaginibus anaglyphice insculpta; nunc primum a *Petro Santi* BARTOLO juxta delineationes in bibliotheca Barberina asservatas a se cum antiquis ipsius columnae signis collatas; aere incisa et in lucem edita cum notis excerptis ex declarationibus Jo. Petri Bellorii; Romae apud auctorem. Obl. fol.

36. The Drawings in the Vatican Manuscript of Virgil, with the text, which is not copied as to the form of the letters; Antiquissimi Virgiliani codicis

fragmenta et picturae ex bibliotheca Vaticana ad priscas imaginum formas a Petro Sancte *Bartoli*, incisae. Romae, 1741.

General Account of Ancient Works of Sculpture and Painting.

37. Histoire de l'Art de l'Antiquitè, par *M.* *WINKELMANN*. 3 vol. quarto. The French edition, by Huber, in 1781, is badly translated.

38. Monumenti Antichi Inediti, di *WINKELMANN*, 1767.

Inscriptions and Engraved Drawings of Antiquities.

39. *BOISSARDI* Antiquitates Romana.

40. Antiquitates Romanae, with engravings; published by *DEBRY*. Debry was the editor of the Collections of Voyages published at Frankfort in 1590, and known by the name of les Grands et Petits Voyages.

Inscriptions.—41. *Jani* *GRUTERI*, Corpus Inscriptionum.

42. Novus Thesaurus veterum inscriptionum in praecipuis earundem collectionibus hactenus praetermissarum collectore *Ludovico Antonio MURATORIO*, serenissimi ducis Mutinae bibliothecae praefecto, cum indicibus locuplelissimis totius operis, ad instar Gruterianae editionis, 4 tom. Mediolan, 1739, 1742, fol.

Salubrity.—Works on the salubrity and insalubrity of the atmosphere at Rome are mentioned under the name Lancisi in the Index.

HISTORY AND ANTIQUITIES OF ITALY IN THE MIDDLE AGES.

43. Antiquitates Italicae medii aevi, *Muratorii.* 6 vol. fol.

44. Histoire des Republiques Italiennes du Moyen age, par *Sismondi*, à Paris, 1809.

45. The history of different principalities of Italy is contained in L'Art de Verifier les Dates des Monumens Historiques, par un Religieux Benedictin de la congregation de Saint Maur. 3 vol. fol.

46. Antiquities of the Middle Ages, Mosaic of the Middle Ages, and Ancient Christian Works of Art in the Churches; Vetera monimenta, in quibus praecipue musiva opera sacrarum profanarumque aedium structura, ac nonnulli antiqui ritus, dissertationibus, Iconibusque illustrantur, *Joannis Ciampini* Romani, magistri brevium gratiae, ac literarum Apostolicarum Majoris Abbreviatoris, necnon in utraque Signatura Referendarii. Romae, 1690. Folio.

HISTORY OF ITALIAN LITERATURE.

47. Storia della Letteratura Italiana del Cavaliere Abate *Girolamo Tiraboschi* consigliere di S. A. S. il signor Duca di Modena, presidente della ducal

Biblioteca, e della Galleria delle Medaglie, e professore onorario nell' Università della stessa citta, seconda edizione Modenese. In Modena, 1789. 8 tom. 4to.

LIVES OF ITALIAN PAINTERS, SCULPTORS, AND ARCHITECTS.

48. Delle Vite de' piu eccellenti Pittori, Scultori, et Architetti di *Giorgio Vasari*, pittore e architetto Aretino. The first edition was printed at Florence in 1550, the next was printed at Florence in 1567, with the addition of portraits cut in wood.

49. Vita di Michelagnolo Buonarroti, pittore, scultore, architetto, e gentiluomo Fiorentino, publicata mentre viveva dal suo scolare *Ascanio Condivi* de la Ripa Transone, seconda edizione, in Firenze, 1746. Fol. This edition was published by Gori.

50. Vita di Benvenuto *Cellini*, the life of Cellini, the Florentine goldsmith and sculptor, written by himself.

51. Storia Pittorica della Italia dell' Ab. *Luigi Lanzi*, antiquario del r. corte de Toscana, Bassano, 1796, 3 vol. 8vo.

52. Vite de' Pittori di *Passeri*.

53. Vite de' Architetti di *Milizzia*.

54. Idea de Pittori, Scultori, e Architetti, in due libri, di *Federico Zuccaro*. Torino, 1607.

55. Vita del Cavaliere Bernini da *Baldinucci*,

1682, written by order of Christina Queen of Sweden.

56. Storia de' Pittori di *Baldinucci*; written to correct Vasari.

TOPOGRAPHICAL DESCRIPTIONS OF ITALY.

57. The 5th and 6th books of the Geography of *Strabo* consist of a description of Italy and the ad jacent islands, written in the time of Tiberius.

58. The 3d book of *Pliny's* Natural History.

59. *Blondi* Flavii Forliviiensis Italia illustrata. Basileae, 1559. Folio.

60. Descrittione di tutta Italia, di F. *Leandro Alberti* Bolognese, dell' ordine de Predicatori. In Bologna, 1550. Folio.

61. *Cluverii* Italia Antiqua. Folio, 1624. Cluverius (Philip Cluver) was born at Dantzick in 1580. He travelled in England, France, Germany, and Italy, and spoke several languages. He died at Leyden in 1623, at the age of 43. He is considered to be the first of the moderns who arranged the science of geography according to a regular system.

62. *Beretti* Chorographia Italiae medii aevi.

63. The Roman roads in Italy are described in the Histoire des Grand Chemins de l'Empire Romain, contenant l'origine, progres, et etendue quasi incroyable de Chemins Militaires, pavez depuis la ville de Rome jusques aux extremitez de son empire. Ou se voit la puissance incomparable des

Romains; ensemble l'eclaircissement de l'Itineraire d'Antonin et de la carte de Peutinger. Par Nicolas *Bergier*, avocat au Siege presidial de Reims. Nouvelle edition, 1736. 2 vol. 4to.

64. Etat de l'Europe apres la dissolution de l'Empire Romain, par *D'Anville*.

NATURAL HISTORY OF ITALY.

65. *Geology*.—An Account of the Geology of Italy, and a Description of the Fossil Shells found in the tertiary hills of gravel and marl at the foot of the Apennines; Conchiologia fossile subapennina. Con osservazioni geologiche sugli Apennini e sul suolo adjacente di *G. Brocchi* ispettore delle miniere membro del R. istituto Italiano, con sedice tavole in rame. Milano dalla stamperia Reale, 1814. 4to.

66. An account of the iron mines and iron works at Brescia by the same author; Trattato Mineralogico e Chemico sulle Miniere di Ferro del departimento del Mella (Brescia) di *G. Brocchi*. 2 tom. 8vo.

67. Essai de Geologie du Vicentin, par *Albert Fortis*, à Paris, 1802. 8vo.

68. *Breislak* on the geology of the country near Rome and Naples.

69. *Ferber's* Letters on Italy, addressed to Baron Born.

Botany.—The following five modern works are descriptive of the plants of Italy:

70. Botanicum Etruscum, by *Savi.*

71. A Description of the Plants that grow spontaneously near Naples, Flora Parthenopea, by *Tenore.*

72. Figures of Italian Plants, entitled Fasciculi, by *Viviani*, and,

73. Decades, by *Bartolini.*

74. Flora Italica, by *Brignole.*

75. *Zoology of the Mediterranean.*—The Description of the Anatomy of the Shell-fish of the Mediterranean by *Poli*, published at Naples about the year 1800, contains ingenious and anatomical descriptions, and coloured figures of the dissected animals, executed in a masterly style. Folio. This work is very rare; a copy is in Sir Joseph Banks's library.

MAPS.

76. *Peutinger's Table.*—The oldest map of Italy is included in the ancient road map called Peutinger's Table, having been in the library of the Peutinger family at Augsburg. The original is on parchment, one Augsburg foot wide, 22 long. The names are in Lombardic letters. It is now in the imperial library at Vienna. It is engraved and published by Velserus of Augsburg, and by Ortelius, and in Bergier's account of the ancient Roman roads, under the title of Tabula Itineraria ex Illustri Peutingerorum Bibliotheca quae Augustae Vindelicorum beneficio Marci Velseri Septem-viri

Augustani in lucem edita. The engraving is diminished; being somewhat less than a span wide. The map contains a delineation of the habitable world known in the time of the Roman empire, and extending from the columns of Hercules to the altars, which were the term of Alexander's expedition. The western part of Britain, Spain, and Africa, is wanting. The chief object of the map is to shew the roads and the distances from one post station to the next. The true form of the countries is not observed, being much extended in longitude, and reduced in latitude. The author lived at a time when Christianity was established, as appears from the name of Saint Peter's church near Rome marked in the map, *ad Sanctum Petrum.*

77. An ancient road-book, containing the post stations of the Roman empire, is published under the title of Vetera Romanorum Itinera, including the itinerary, published by an ancient author of the name of Antoninus, and entitled Itinerarium Antonini, and the Itinerarium Hierosolymitanum.

78. On the True Position and Relative Distances of the Principal Points of Italy, and a Rectification of the Maps of Sanson and Delisle, both of whom placed Italy too far west; Analyse Geographique de l'Italie dediée à Monseigneur le Duc D'Orleans, premier prince du sang, par le Sieur D'Anville, Geographe ordinaire du Roi. A Paris, 1744. 4to.

79. Carte de l'Italie, par Rizzi Zanoni.

80. Carte de l'Italie, par Dufer.

81. *Map of the North and Middle of Italy.*— The north and middle of Italy, in 30 sheets, scale of 16$\frac{8}{10}$ English inches to a degree; Carte Generale du Theatre de la Guerre en Italie, et dans les Alpes; depuis le passage du Var le 29 Septembre 1792, jusqu'à l'entrée des Français à Rome le 22 Pluviose an 6me, (1798;) et de la seconde campagne en Italie, an VIII. (1799, 1800,) commandée par le General Bonaparte, Premier Consul de la Republique Française, terminee par la bataille de Marengo, (en 1800,) et la remise aux Français de Tortona, Alessandria, Torino, Milano, Pizzeghetone, Arona, Piacenza, Coni, Ceva, Savona, Genoa, et le Fort d'Urbin; en trente feuilles, par *Bacler* DALBE, ingenieur attaché pendant toute la guerre au General Bonaparte en qualité de chef de son Bureau Topographique, et chef des Ingenieurs Geographes du Depot de la Guerre, à Paris.

82. Carte generale des Royaumes de Naples, Sicile, et Sardaigne, ainsi que des isles de Malte et de Goze, formant la seconde partie de la Carte Generale du Theatre de la Guerre en Italie et dans les Alpes, par *Bacler* DALBE, ingenieur geographe attaché au depot de la Guerre, 24 feuilles, an 10, (1811,) the same scale as the first part. This second part contains the notes of the marches and other events in the campaign, which ended in the conquest of Naples by the French under Championet in 1808.

83. Carta administrativa del regno d'Italia, in several sheets, scale about nine inches to a degree of latitude. Milan, 1811, il prezzo, 40 franchi. It is a map of that part of Italy which Bonaparte formed into a dominion under the name of the Kingdom of Italy, and also extends as far south as just to include Rome. It is neatly engraved.

84. A map of the dutchy of Milan was lately constructed from the geometrical observation of the astronomers of Brera at Milan, 1818.

85. Carta degli stati di S. M. il Re di Sardegna da *Borgognio*, 1680.

86. Carta topografica degli stati della republica de Genova, published in Spain by *Chaffrion*.

The map of Borgonio and that of Chaffrion were copied and republished in London by Dury.

87. Maps of Istria, of the Dogado of Venice, and the Polesina, by *Valle*.

88. Carte de la Toscane, by *Morozzi*.

The astronomers of the Scuole pie at Florence were employed in 1818 in a geometrical survey and map of Tuscany.

89. Carte de l'Etat de l'Eglise, par *Boscovich* et *Le Maire*.

The two following are in Breislak's geological description of the Campagna Felice.

90. A map of the Campagna Felice and the mountains near Naples, including the coast from Gaeta to Salerno, $8\frac{6}{10}$ inches to a degree, entitled Carte Physique de la Campanie, par *Scipion Breislak*.

91. A map of Vesuvius, with the currents of lava that flowed in 1724, 1737, 1751, 1760, 1761, 1767, 1794, and others, on a scale of 76 inches to a degree, entitled, Carte de Vesuve et de la plage comprise entre Naples et La Torre dell' Annunziata, par *Scipion* BREISLAK.

92. Map of the Simplon road, with mineralogical notes and notes of heights, one sheet, scale $\frac{3}{10}$ of an inch to the English mile; Plan de la route du Simplon, commencée par les Françâis en 1800, et achevée par eux en 1807, dressé par CORDIER, ingenieur au Simplon, publié à Paris.

93. *Switzerland.*—Carte de la Suisse, par le General PFYFFER.

94. Carte de la Suisse, par WEISS, gravée à Strasbourg, 15 sheets, 18 inches by 27. Scale 86$\frac{3}{10}$ English inches to a degree; published about 1795.

95. *Carniola.*—Carte de la Carniole, par DISMAN.

96. Part of Carniola is contained in the map of Hungary, Croatia, Slavonia, and Transylvania, published at Vienna in 1810 by LIPSZKY, a colonel in the Austrian service, on a scale of about nine inches to a degree.

HEIGHTS IN ITALY, THE ALPS, FRANCE, and others; collected from the Table of Heights taken by the Barometer by Sir G. Shuckburgh, and published in the Philosophical Transactions 1777; from a Diagram of the Heights of Moun-

tains published by Mechel at Berlin;* and from other authorities.

Geneva, the lakes, and the Mont Cenis road.

		Eng. Feet above the Sea.
The lake of Geneva, . .		1230
Greatest depth of the lake, 393 feet.		
The lake of Neuchatel or Yverdun,	Mechel,	1428
The lake of Thoun, . .	M.	1898
The lake of Constance, Weiss's map, .		1095
Chamouny, ground floor of the inn near the foot of Mont Blanc, . .	Shuckb.	6231
The ball on the highest or south-west tower of St Peter's church in Geneva, above the lake, 249		
The Dole, highest mountain of the Jura,		5523
Frangy at the inn, first floor, lower than the lake of Geneva, 166		
Chambery au Saint Jean Baptiste, first floor, lower than the lake, 352		
Montmellan, 20 feet above the river Isere, .		811
Aiguebelle at the inn, first floor, lower than the lake of Geneva, 190		
La Chambre at the inn door, above the lake, 337		
Saint Michael at the inn, first floor, .		2343
Modane at the inn, first floor, .		3450
Lanslebourg at the inn, first floor, .		4408
Mont Cenis at the post, - .		6023
Novalese, . . .		2741

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* Tableau des hauteurs principales du globe, publié à Berlin, par Chretien Mechel, membre de l'Academie des Beaux Arts, 1806.

Heights of different parts of the Alps from Mechel's Diagram.

		Height above the Sea in English Feet.
Monte Viso, . .	Mech.	10,051
Limit of perennial snow on the Alps in the latitude 46, ...		9,393
Saint Michel, the summit of Mont Cenis,		9,243
Mont Blanc, . . .		15,636
Summit of the Cone of the Great Saint Bernard, . . .		9,367
Monte Rosa, . . .		15,527
L'Orteler in Tyrol, . .		14,927
Gross Glockner in the country of Salzburg,		12,766
Summit of the Oetscher in Styria, .		6,376

Passes of the Alps.

Col de Tende, . .	Mech.	5,884
Mont Cenis, . . .		6,773
Little Saint Bernard, . .		7,188
Great Saint Bernard, (8074 Saussure,) .		7,960
Col de la Seigne, otherwise called Col de l'Alée Blanche, the culminant point of the path which crosses the mountain four miles north-west of the Little Saint Bernard, . .		7,898
Le Col Ferret, the culminant point of the path which crosses the mountains five miles east of the Great Saint Bernard, . .		7,610
Col du Mont Cervin, . .		11,182
Le Simplon, the highest part of the road, (Plan du Simplon,)		6,574
Passage du Gries, the culminant point of the road over the mountains between Sterzing and Innsbruck, in the valley, . .		7,815

		Height above the Sea in English Feet.
Saint Gotthard in Switzerland,		6,805
The Splugen in the country of the Grisons, the culminant point of the path over the mountains from Chiavenna to the Rhein Wald, or valley of the Rhine,		6,313
The Brenner in Tyrol,		4,657
Les Taures de Heiligen Blut,		8,580
Les Taures de Radstadt, (Radstadter tauern,) five miles south of Radstadt, on the way from Salzburg to Willach,		5,411
The Katschberger Pass,		5,214
ITALY.		
Turin à l'hotel d' Angleterre, second floor,	Shu.	941
Lake Maggiore, plan du Simplon, par Cordier,		677
Domo Dossola, Plan du Simplon,		1,003
Piacenza, San Marco, first floor,	Shuckb.	263
Parma, au Paon, first floor,		307
Modena at the Albergo Nuovo,		214
Il Cimone di Fanano, in the dutchy of Modena, the highest summit of the northern Apennines. It is called also Monte Orientale, because it is situated a little to the east of the great chain of the Apennines, from which it is separated by a valley; it is insulated, and its base is 25 miles in circuit. The Adriatic and the Tuscan Sea are seen from its summit; measured by Father Pini,		6971
Bologna at the Pelegrino, first floor,	Shu.	399
Monte Radicoso, the highest part of the Apennines that the road passes over between Bologna and Florence,		2901
Florence nel Corso dei Tentori, 50 feet above the Arno, which was 18 feet below the wall of the quay,		240

		Height above the Sea in English Feet.
Pisa at the Tre Donzelle, second floor,		54½
Leghorn, second floor,		38
Siena,		1,066
Radicofani at the post,		2,470
Mountain at Radicofani,	Mechel,	3,054
Rome, in the Corso 61 feet above the Tiber,	Shu.	94
The level of the river Tiber, (25 Eng. feet Opusc. Astr. e fisici di Calandrelli,)	Shuckb.	33
		Feet above the Tiber.
The top of the Janiculine hill near the Villa Spada,		260
Aventine hill, near the priory of Malta,		117
Palatine hill, on the floor of the palace of the Cæsars,		133
Capitoline hill, at the west end of the Tarpeian rock,		118
The Carthusian church in Diocletian's baths,		141
The Esquiline hill, at Santa Maria Maggiore, Calandrelli,		163
Top of the cross of Saint Peter's church,		502
Base of the Obelisk before Saint Peter's,		31
		Eng. Feet above the Sea.
The summit of Monte Sant Oreste, anciently Soracte, 28 English miles north of Rome, meas. geometrically		2,271
Monte Cavi, the highest summit of the Albano hills, 20 miles south-east of Rome,	Mech.	3,118
The summit of Monte Vellino, north of the lake of Celano in Abruzzo, the second in height of the Apennines, covered with snow in June, (8388 M. and Von Buch,)		8,397

Monte Corno, called Il Sasso Grande, the high-

	Eng. Feet above the Sea.
est of the Apennines, 30 miles north of the lake of Celano, in Abruzzo, (8791 Reuss lehrbuch der Geognos.) measured barom. by Delfico, as cited by Brocchi, . .	10,199
Montagna della Siblila, 26 miles east of Foligno, . . . Mechel,	7,495
Mount Vesuvius, mouth of the crater from whence the fire issued in 1776, Me. 3698 Sh.	3,938
Monte Baldo on the east of the lake di Garda, Me.	7,238
Monte Venda, one of the Euganean hills, a little to the south of Padua, . Mech.	1,603
SICILY AND CORSICA.	
Etna, . . . Mech.	11,946
Monte Rotondo in Corsica, . .	8,687
FRANCE.	
Dijon à la Cloche, first floor, . Shuck.	710
Auxerre, 50 feet above the river, .	283
Sens at the post, . . .	163
Fontainebleau at the grand Cerf, second floor,	242
Paris, mean height of the Seine when the water is 13 pieds 9 pouces on the scale at the Pont Royal, ...	36½
Le Pere Cotte's meteorological observatory at Montmorency, near Paris, . .	333
Stone gallery of the church of Mont Valerien, near Paris, ...	473
Height of the north tower of Notre Dame of Paris, above the floor, 218	
Amiens, rue de Nyon, . .	147
BRITAIN.	
Thames at London, mean height above the sea when the water is 15½ feet below the pave-	

	Eng. Feet above the Sea.
ment in the left hand arcade at Buckingham Stairs, ...	43
Warwick, mean level of the river Avon, .	155
Ben Nevis in Scotland, the highest mountain in Britain, ...	4341
HANOVER.	
The Brocken, the highest summit of the Hartz, Mech.	3487

ITINERARY.

1817.			Distance in Eng. miles.
Nov.	1.	Trieste.	
		Grotto of Carniole or Corgnale, north-east of Trieste, . . .	7
		Trieste.	
		Adelsberg, . . .	19
		Lohitsch, . . .	9½
		Leave the great Vienna road, and proceed to	
		Idria, ...	15
		Trieste, . . .	43½
	18.	By sea to Venice, . . .	72
Dec.	17.	Padua, ...	21
		Vicenza, . . .	20
	19.	Verona, . .	30
	20.	Mantua, . . .	24
		Modena, . . .	42
	23.	Bologna, . . .	23
		Cross the Apennines to	
	27.	Florence, . . .	58½
1818.			
Jan.	24.	Pistoja, . . .	23

1818.		Distance in Eng. miles.
Jan. 24.	Florence.	
	Pisa,	51
	Leghorn,	14
	Florence.	
30.	Perugia,	80
	Foligno,	20
	Terni,	30
Feb. 2.	Rome,	62
Mar. 27.	Nepi,	30
30.	Foligno,	64
31.	Fossombrone,	60
	Fano,	17
	Pesaro,	8
April 1.	Cattolica,	10
	Rimini.	
	Forli,	29
3.	Ravenna,	18
	Forli,	18
	Faenza,	9
	Imola,	10
4.	Bologna,	20
	Modena,	23
5.	Reggio,	17
5.	Parma,	16
6.	Borgo San Donino,	15
7.	Placentia,	21
8.	Casal Pusterlengo,	10
	Lodi,	12
9.	Milan,	20
15.	Pavia,	21
18.	Milan,	22
20.	Como,	28

1818.			Distance in Eng. miles.
Ap.	20.	Plincana on the lake,	6
		Como,	6
		Varese,	16
		Laveno,	12
		Boromean islands,	5
	21.	Sesto by water,	15
	22.	Milan by water,	43
	24.	Novarra,	29
		Vercelli,	13
	26.	Turin,	46
	28.	Susa,	35
		Hospice du Mont Cenis, on the mountain,	12
		Lanslebourg,	7
	29.	San Michel,	24
		S. Jean de Maurienne,	7
	30.	Chambery,	45
May	3.	Geneva,	46
		Lyons,	76
		Macon,	41
		Chalons,	36
		Beaune,	17
		Nuys,	14
		Dijon,	14
		Semur,	40
		Auxerre,	46
		Joigny,	15
		Sens,	16
		Montereau,	21
		Fontainebleau,	11
		Essone,	17
	17.	Paris,	17

Population and Extent of the different States of Italy since the Treaty of Vienna in 1815; from Mayer's Map.

	Surface in Sq. Miles.	Number of Inhabitants.
Territory of the King of Sardinia on the mainland of Italy,	14,990	3,291,000
Lombardo-Venetian kingdom,	13,880	4,065,000
Dutchies of Modena and Massa,	1,533	395,000
Dutchy of Parma, . .	1,626	383,000
Dutchy of Lucca, . .	374	131,000
Grand Dutchy of Tuscany, .	6,019	1,264,000
Territories of the Pope, .	13,055	2,425,000
Republic of San Marino, .	17	7,000
Naples, on this side the Faro,	23,372	5,100,000
	74,866	17,061,000 Tot. Po. of Italy.
Islands.		
Corsica, belonging to France,	2,723	290,000
Sardinia, under the dominion of the King of Sardinia, .	7,481	520,000
Sicily, under the dominion of the King of Naples, . .	8,359	1,785,000
Malta, Gozzo, and Comino, under the dominion of Britain,	143	150,000
	18,706	2,745,000
Total of Italy and the islands.	93,572	19,806,000

Population of some of the Towns of Italy, Savoy, Istria, and Dalmatia, according to the most common statements in 1818.

Names of Towns.	Sovereigns.	Number of Inhabitants.
Arezzo, .	Grand Duke of Tuscany, .	10,000
Bergamo, .	Emperor of Austria, .	30,000

Names of Towns.	Sovereigns.	Number of Inhabitants.
Bologna,	Pope,	70,000
Brescia,	Emperor of Austria,	45,000
Capo d'Istria,	Emperor of Austria,	30,000
Cesena,	Pope,	10,000
Chambery,	King of Sardinia,	10,800
Como,	Emperor of Austria,	12,000
Faenza,	Pope,	17,000
Ferrara,	Pope,	22,000
Florence,	Grand Duke of Tuscany,	70,000
Forli,	Pope,	15,000
Genoa,	King of Sardinia,	80,000
Leghorn,	Grand Duke of Tuscany,	50,000
Lodi,	Emperor of Austria,	12,000
Mantua,	Emperor of Austria,	24,000
Milan,	Emperor of Austria,	130,000
Modena,	Duke of Modena,	26,000
Naples,	King of Naples,	400,000
Padua,	Emperor of Austria,	44,000
Parma,	Dutchess of Parma,	23,000
Pavia,	Emperor of Austria,	12,000
Perugia,	Pope,	10,000
Pesaro,	Pope,	10,000
Pisa,	Grand Duke of Tuscany,	18,000
Pistoja,	Grand Duke of Tuscany,	10,000
Placentia,	Dutchess of Parma,	25,000
Prato,	Grand Duke of Tuscany,	10,000
Ragusa,	Emperor of Austria,	4,000
Ravenna,	Pope,	15,000
Rimini,	Pope,	17,000
Rome,	Pope,	153,000
Seina,	Grand Duke of Tuscany,	16,000
Spoleto,	Pope,	6,000

Names of Towns.	Sovereigns.	Number of Inhabitants.
Terni,	Pope, - -	5,000
Trevise,	Emperor of Austria, -	15,000
Trieste,	Emperor of Austria, -	50,000
Turin,	King of Sardinia, -	80,000
Venice,	Emperor of Austria; in 1550, according to Bodin of Angers, 180,000; in 1760, according to Anderson in the History of Commerce, 170,000; in 1818, - -	120,000
Verona,	Emperor of Austria, -	45,000
Vicenza,	Emperor of Austria, -	33,000
Zara,	Emperor of Austria, -	6,000

GEOLOGICAL VIEW OF THE APENNINES AND OF ITALY.

The Apennines occupy the largest portion of the surface, and constitute the principal geological feature of Italy. An account of the geology of the Apennines and of Italy is published by Brocchi, * and the following view consists of an abridgment of Brocchi's account, in which I have inserted some occasional remarks.

Primitive Rocks in Italy.—The primitive rocks that occur in Italy are mostly in Liguria, now called the dutchy of Genoa, and Calabria. Granite is fre-

* Conchiologia Fossile Subapennina di Brocchi, 1814.

quent in Calabria, and occurs in Liguria near Sarzana.

Micaceous shistus occurs in the eastern part of Liguria and at Massa di Carrara; gneiss at Montieri, Gerfalco, and Prata, and in the Valle della Mersa, all in the Maremma of Siena; but micaceous shistus does not occur in the most extensive tract of the Apennines, which is calcareous, and not of the shistose structure called primitive.

Serpentine.—Another primitive rock is magnesian serpentine; in Eastern Liguria at Pignone, and near La Spezia, it is covered by transition limestone; at Chiavari, Lavagna, and Levanto, in the same district, it lies under argillaceous shistus, grunstein, and grauwake. In the Maritime Graian and Pennine Alps serpentine is found higher up, in Liguria it is lower, and farther south in Tuscany it is still lower, as Brocchi says. At Prato, in Tuscany, it forms low hills from Figline to Biano and Montemurlo. It is most abundant at Impruneta in Tuscany, extending from Ema to La Greve. It is met with at Anghiari, near Gubbio. In the district of Siena it is frequent at Frosine, Bell' Aria, Casole, Pieve-a-Scuola, Monte Cerboli, and at the Galleraie in the Maremma. It constitutes the hills of Monte Nero, of Valle Benedetta, and of La Sambuca, near Leghorn. It is found in the territory of Volterra, near Massa di Maremma, near Orbitello. Geologists consider these discontinuous groups as parts of one

deposit or formation, on which grauwake and other strata were afterwards deposited. In Liguria and the district of Siena the magnesian serpentine is accompanied by argillaceous shistus. In the dutchy of Modena, on the opposite and northern side of the Apennines, it occurs at Vesale. Brocchi is of opinion that it forms the base of Tuscany and of a considerable part of the Apennines; he did not meet with it in the southern Apennines. The opaque green magnesian serpentine, to which the foregoing passages relate, is called in Tuscany Gabbro. In Calabria there occurs a green pellucid serpentine, considered to be of an older formation; it is connected with micaceous shistus.

Over the gabbro serpentine lies a red argillaceous earthy stratum.

Granitone.—Jade alone, jade mixed with serpentine, or mixed with diallage, forming a rock like the verde di Corsica, and called Granitone in Tuscany, is found accompanying the serpentine, as it does the serpentine at the Lizard in Cornwall. I did not observe it near the serpentine of Portsoy in Aberdeenshire, which is adjacent to graphic granite and gneiss, and I am informed it does not occur there to any considerable extent. This granitone is found particularly at Figline, three miles from Prato, in Tuscany, where it is quarried for millstones. The granitone is a stone of much tenacity, and requires great mechanical force to break it, but it decomposes

by the action of time and exposure to the air, and falls into a large grained sand, which, in Tuscany, is mixed with clay to make bricks and small culinary furnaces to burn charcoal in. Hauy considers jade, which composes the granitone, to be a modification of felspar. The granitone, in some places, resembles grunstein, and these syenitic rocks which are composed of felspar and hornblend.

Transition Rocks.—The transition rocks of the Apennines consist of; first, the Pietra Serena, or Macigno, the dark grey grauwake of the mountains of the Garfagnana, Modena, and Tuscany, which does not extend farther south than Cortona. Secondly, The dark-coloured calcareous rock, sometimes stratified with the grauwake, and occurring on the south-west coast of Italy, but not on the Adriatic coast of Italy; these two rocks occur at Trieste, as I observed. * Thirdly, The argillaceous shistus of Lavagna in Liguria and in Tuscany which does not occur on the Adriatic coast of Italy.

Secondary Strata.—The rocks of secondary formation in the Apennines consist of the stratified calcareous rock. Of all the rocks which occur in the Apennines this occupies the greatest space, and extends to Otranto, the south-eastern promontory of Italy.

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* See p. 18, Vol. I.

Tertiary Deposits.—The tertiary formation in Italy constitutes low hills, and consists of two deposits, the one a kind of shale or stratified marl; the other is a yellow-coloured gravel, of which Monte Mario near Rome, and part of the Janiculine hill, are examples.

Of the fossil shells that are found in the low tertiary hills of marl, of clay, or of sand, by the side of the Apennines, Brocchi found more than one half of the number of species he examined to be quite similar to the shells of the shell-fish that are known to exist at this day in the Adriatic and Mediterranean; he found that others belonged to species which are not known in the adjacent seas, but inhabit the Atlantic, the Indian Ocean, or the Pacific; and others which naturalists have not yet observed living in any part of the globe. These shells of the tertiary hills are loose and not petrified; they differ entirely in their form from the petrified shells which are found in the secondary rocks of the Apennines; the shells of the secondary strata have less resemblance to the shell-fish that are now known to exist in different seas. Brocchi found the tertiary hills containing shells between the Apennines and the sea on both sides of Italy; and also at the base of the north side of the Apennines, which form the southern boundary of the plain of Lombardy, as at Castel Arquato, in the district of Placentia. Some of the bivalve shells of the tertiary hills are so entire that

they have the ligament of the hinge remaining. In some places a number of shells of one and the same species are found together; the shells are very entire and not broken; from these appearances it is argued that the shell-fish lived in the places where their shells are found.

Two very large and remarkable beds of loose shells, in a state similar to those here spoken of, exist at Montmirail in Champagne, and at Grignon, five miles west of Versailles; their species are described by Lamark in the Annales du Museum d'Histoire Naturelle de Paris.

Stalactitical Deposit.—The travertine, of which considerable hills are composed at Tivoli and in other places, is considered to be still more recent than the tertiary hills of marl and of gravel. It is carbonate of lime, deposited from a solution in fresh water, as appears from the circumstance that it does not contain sea-shells.

Explanation of the Numbers on the Map denoting Rocks and Mineral Strata.

In the annexed map the situation of some of the above mentioned rocks in the north and middle of Italy, also of some of the rocks in Carniola, and in some parts of the Alps, is marked by Roman numerals, with a line drawn through them. The names

of the rocks and minerals in the place where each number is situated and its vicinity are as follows.

I. Near Trieste ; Istrian marble ; greystone in flat strata like the Florentine pavement, the grauwake and grey transition calcareous rock of Brocchi ; pitcoal.

On the islands of Cherso, Ossero, and Sansego, seventy miles south-east of Trieste, are found bones of deer and other quadrupeds imbedded in calcareous stalactitical deposition, like the bones found at Gibraltar.

These bones are mentioned by Fortis, * and are of a recent formation.

Bones, which appear to have been deposited at the same period, and in the same circumstances, or, in geological terms, bones deposited in the same formation, are found also on the islands of Cerigo and of Corfu, and at the foot of the Apennines at Pisa in Tuscany. There is a paper by Cuvier on the bones found in these different places.

II. At Idria ; limestone ; shale containing cinnaber or sulfuret of mercury.

III. The Euganean hills near Padua ; and

IV. The Monti Berici, immediately south of Vicenza, are two groups of low hills adjacent to each other, and almost surrounded by plain ground, having no

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* Voyage en Dalmatie, par Albert Fortis.

high ridge to connect them with the subalpine hills that constitute the northern part of the Vicentin; these two ridges of the Monti Berici and the Colli Euganei extend from Vicenza to Monselice. The Euganean hills contain porphyry, which is used in paving the streets of Padua and Venice; Pechstein; some small strata of calcareous breccia, situated above the porphyry; as described by Fortis in his Geologie du Vicentin, * and by him and others in the Memorie dell Academia di Padova, 1780.

V. At Monte Bolca; white shale, which is the margel schieffer of Werner, containing remains of fish. At Romognano, nine miles north of Verona, in the Val Panterna, the grinding-teeth and other bones of elephants were found in a cavity of calcareous rock, which rock contains flint and petrified shells. † Some grinding-teeth of the rhinoceros were found two years ago (1819) in a cavity of the limestone rock at Plymouth; their situation, it appears, was similar to the bones here mentioned. Near Monte Bolca, at Lovegno, near Schio, and at other places in the north and subalpine part of the Vicentin, basalt in prismatic columns; this basalt, or hornblend rock, is stratified with limestone, as Fortis relates; near Stirling and Linlithgow in Scotland

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* See p. 247, Vol. II.

† See Memoires pour servir à l'oryctographie de l'Italie, par Albert Fortis, 1802.

hornblend rock also occurs above limestone strata, perhaps of a similar formation with the basaltic strata in the northern Vicentin. Crystals of quartz, with a cavity containing a drop of water, called Enhydrites, are found in the Vicentin; the water sometimes evaporates through imperceptible pores when these enhydrites are kept for some time. Near Schio in the Vicentin, twenty English miles north-east of Vicenza, porcelain earth, which has been long worked; according to Fortis it is a decomposed lava. The subalpine hills in the Vicentin near Schio are calcareous, and contain also prismatic basalt. At Valdagno, six miles south-west of Schio, and in the valley of the Torrent Chiampo, or Aldego, twelve miles south-west of Schio, is quarried the white Vicentin marble, called, in the country, Biancone, that is to say, white marble in large strata or blocks; shells occur in it but rarely; it resembles the Istrian marble, which is used for ornamental building in Venice. There are other strata of limestone in the vicinity, which abound in petrified shells.

Fortis, a native and inhabitant of the Vicentin, mentions, in 1802, that he was deterred from visiting Durlo and the adjacent rocks, because that village, situated on a precipitous rock, was known to be inhabited by banditti and malefactors, who were protected from the Gendarmerie or military police by the inaccessible situation of the place. At Braganza, twelve miles north of Vicenza, pitcoal was

wrought in 1802, as Fortis mentions. Another stratum *of coal is near Arzignano.* Lead mines were formerly wrought near Schio. Brocchi, one of the most esteemed of the Italian geologists of the present day, is a native of Bassano, which is near the Vicentin, to the north-east; Signor Parolini of Bassano possesses an extensive collection of minerals, containing a part of the collection of the late Delametherie of Paris.

VI. At Brescia; iron ore is wrought and smelted.

VII. At Florence; pietra serena or grauwake in flat strata, used for building; it sometimes contains fragments of wood. This rock, according to Brocchi, occurs less frequently in the southern Apennines. The dark-grey stone, used at Florence for paving the streets, is stratified with grauwake, and is considered by Brocchi to be transition limestone.

VIII. Near Prato; green magnesian serpentine.

Il Cimone di Fanano, between Pistoja and Modena, the highest of the northern Apennines, is of pietra serena. *

IX. At Carrara; white marble.

In the Lunigiana are two considerable caverns, called La Buca d'Equi and La Grotta di Tenerano; they are in the pietra serena, or dark-grey stratified grauwake.

* Conchiolog. di Brocchi.

X. At Elba; granite; iron ore in the high state of oxidation.

XI. In the Val d'Arno Superior; many fossil bones of elephants; and some of mastodon or American mammoth; of rhinoceros; of urus; and of elk, similar to that found in the peat mosses of Ireland. The bones most frequently found in the Val d'Arno are those of the horse, then, in the order of their frequency, the elephant, the urus, the hippopotamus, the rhinoceros, and the bones of the mastodon, which are the rarest.* Appearances lead to the opinion that these animals lived in the place where their bones are found. The warm temperature required for their existence may have been procured by the greater extent of sea, and by other causes not yet well explained by geologists.

XII. At Bolsena; columnar basalt.

At Radicofani the summit of the mountain is considered to be volcanic, the rest of the surface is a kind of marl; Brocchi supposes that it was a submarine volcano, on the sides of which the marl was deposited by the sea.

At the lake of Bracciano; volcanic tufa. †

At Pereta, near Orbitello, in the Maremma of Siena, sulfur is extracted from tertiary clay.

At Frosine, in the district of Siena, is quarried

* Conchiologia di Brocchi.

† Ibid.

the marble called Brocatello di Siena, a transition marble. *

Copper pyrites and galena, in a secondary shale, were wrought near Rocca Strada, in the Maremma of Siena.

At Monteterzo, in the district of Volterra; alabaster.

In the Val di Cecina, near Volterra, a brine spring was wrought in 1810; the water affords 30 per cent. of salt.

XIII. At Rome; pozzolana, or decomposed piperino; basalt at Capo di Bove; gravel and fossil shells on Monte Mario. This yellow gravel Brocchi considers as the latest of the tertiary deposits in Italy; it is very extensive, and forms part of the Vatican hill and part of the Aventine, the hills in the Val d'Era, ValdiniEvole, and Valdarno inferior in Tuscany; it appears in Apulia; in Romagna it is abundant, and forms the principal part of the ground from Macerata to Ancona; it constitutes many hills in the districts of Reggio di Modena and Placentia, of Asti and Piemont.†

At Marino; piperino.

At la Tolfa and Civita Vecchia; calcareous rock, containing veins of galena and of sulfuret of antimony. At la Tolfa, alum rock.‡

* Conchiologia di brocchi. † Ibid. ‡ Ibid.

XIV. At Tivoli; calcareous deposit, a particular kind of which is the Travertine stone used in building. This rock is considered to be more recent than the tertiary; it constitutes the mountain of Tivoli and the adjacent plain where the small lake dei Tartari is. This kind of rock occurs also at the cascade of Terni; in the plain of Sartcaro; in the Val di Chiana, containing fresh water shells; near Montalceto; in the Crete of Siena; in Valdese; at Prata in the Maremma of Tuscany there are hills of Travertine. *

XV. At the cascade of Terni; rock of calcareous stalactite, as mentioned in the preceding number.

XVI. At Sigillo; limestone or indurated chalk, containing brown flints. This calcareous rock, which varies in texture, is the most prevalent in the Apennines. In some places, as at Sigillo, it is soft like indurated chalk, in other places it is compact, and constitutes a marble like the Istrian marble; of this calcareous formation are composed the great Apennines of Tuscany, of Romagna, of Fabriano, of Foligno, of the Sabina; it extends into Abruzzo, and into the Basilicate, and to Otranto, and perhaps into Calabria; the extreme promontory of Apulia, the extensive plain of la Puglia Pietrosa is composed of the strata of this calcareous rock, bare,

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* Conch. di Brocchi.

and with some earth only here and there, so that the olive trees, the vines, and the carobs, which are the objects of culture, scarcely find nourishment. Brocchi describes this rock, in the Murgie hills in Apulia, as having irregular water-worn perforations, as those that occur in the limestone near Trieste.* The Istrian marble used at Venice for ornamental architecture is of this kind of rock, in a compact state, and the marble from the rocks near the Furlo is sometimes used at Venice for the same purpose, and resembles the Istrian marble. The calcareous rocks of the Jura mountains north of Geneva are considered to be of the same formation.† This kind of calcareous rock Brocchi considers to be the same as the rock called by Reuss the Limestone of the Caverns, Hohlenkalk. It is the limestone in which the caverns of Derbyshire are situated. Several caverns occur in this limestone in the Apennines, namely, the caverns in the mountains of Todi, of Orvieto, of Foligno, of the Sabina, the grotta of Collepardo near Alatri in Latium, Il Pozzo di Antullo near Collepardo, the vast grotto of Monte Cucco between Gubbio and La Schieggia, and others. This rock in Italy contains no metallic veins.‡ Brocchi considers the rock to be secondary, and not transition.

* See page 19, Vol. I.

† Conch. di. Brocchi. ‡ Ibid.

XVII. At La Schieggia; limestone and flat strata of clay ironstone.

XVIII. Between Cantiano and Cagli; limestone containing brown flints.

At Ancona a stratum of calcareous rock, composed of round particles, with petrified shells, an oolite. It is used in building, and lies under the tertiary marl.*

The hill of San Marino near Rimini is of tertiary bluish marl, and yellow calcareous sand.*

In the district of Cesena; sulphur in strata of a tertiary marl; the marl is stratified with gypsum and with a tertiary calcareous sandstone;* sulphate of strontian also occurs, crystallized, like the Sicilian.

At Monte Paterno near Bologna; sulphate of barytes in nodules, lying in the tertiary marl;* they are phosphorescent, and called Pietre di Bologna. The situation of the nodules of sulphate of barytes in the fuller's earth near London appears to be similar.

XIX. At Castell Arquato the skeleton of a whale, 21 feet long, was found some years ago; the bones were not at all petrified, that is, the preservation of their form was not due to any adventitious infiltration, they were not penetrated by calcareous matter fo-

* Conch. di Brocchi.

reign to their own substance. The skeleton of a dolphin, six feet long, was found in the same place.*

XX. At the Plineana; calcareous stratified rock.

XXI. At the Boromean islands; gneiss or micaceous shistus.

At Intra, at the bifurcation of the lake, and opposite to the Boromean islands, hornblend rock or basalt, of which it was attempted to make bottle-glass.†

XXII. At Baveno, on the lake Maggiore, east of the Boromean islands; red granite, containing square prismatic light-red crystals of felspar, accompanied sometimes with fluate of lime.

XXIII. At Crevola bridge, on the Simplon road, four miles north of Domo Dossola; Crevola marble. This white marble was used in constructing the unfinished triumphal arch at Milan.

XXIV. Near the Simplon village; gneiss.

XXV. On the Ticino, near its issue from the lake; gravel banks consisting of rolled pieces of hornblend shistus, quartz, serpentine, granite.

XXVI. Near Turin; gravel, containing rolled pieces of magnesian serpentine.

The hill of La Superga near Turin is composed of rolled masses of serpentine, and other rocks imbedded in the tertiary marl and calcareous sand.‡

* Conch. di Brocchi.

† Amoretti.

‡ Conch. di Brocchi.

At Bagnasco on the Tanaro, twelve miles south by east of Mondovi ;. pit-coal occurs.

At Susa green magnesian serpentine is wrought for chimney-pieces, called Verde di Susa. At Frabouse yellow marble, with white veins, and grey marble, bardiglio, is wrought. At Garesio on the Tanaro, fifteen miles south of Mondovi, black marble with yellow veins. In the Val di Vaudier, 20 miles south-west of Coni, grey marble is wrought, and large blocks of it are obtained for columns. At Casolta, persechino or peach-coloured marble. At Busca figured alabaster is wrought. At Ponte, 24 miles north of Turin, a white marble fit for making statues. At Malere, Carcare, and Millesimo in the Apennine mountains, which separate the dutchy of Genoa from Piemont, iron ore brought from Elba is smelted. At Acqui in Monferrat, the Aquae Statiellorum of the Romans, are warm springs used as baths, and resorted to for the cure of various diseases. These springs issue from beneath strata of gypsum, as Fortis states.* There is also a small brine spring at Acqui, which is near gypsum, as the brine springs of Bex in the canton of Bern, and of Northwytch in Cheshire, and as other brine springs and salt rocks generally are.

XXVII. At Lavagna ; argillaceous slate, which

* See Traité sur les Thermes d' Acqui, par Malacarne.

Brocchi considers to be transition slate; a similar slate occurs in the Valle di Cardoso in the territory of Pietra Santa near Carrara.

The hills on which Genoa is situated are of a dark-coloured transition limestone. *

XXVIII. In the Valle di Polcevera or Pozzevera; magnesian serpentine.

Pit-coal was wrought successfully in 1802 at Cadebona, near Savona, in the dutchy of Genoa, where the coal is of great utility, fire-wood being very scarce in the dutchy. Near Savona micaceous shist, as Amoretti states.

XXIX. At Nice; limestone, considered to be transition; and gravel. †

XXX. Micace [illegible] valley of Susa, on Mont C [illegible]

P [illegible] t of Lanslebourg.

[illegible] ichel.

[illegible] sidered to be transition [illegible] Jean de Maurienne.

[illegible] Limestone, containing shells at La Perte du Rhone.

---

* Conch. di Brocchi.

† Sketch of the Geology of the Environs of Nice, by T. Allan, Esq. in the Transactions of the Royal Society of Edinburgh, Vol. VIII. 1817.

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when Octavianus reigned over Rome, Cornelius Gallus was procurator, and exhausted the wealth of Thebes by his extortions; at his return home he was accused of peculation, and of pillaging the province, and dreading condemnation, he fell upon his sword. This, I believe, is Gallus the poet, whom Virgil laments in tender verses in his Bucolics. In this city, amongst vast labra, or vases of stone, and various great works, representing the deities of the Egyptians, we observe several obelisks, which the ancient kings, after subduing the nations in war, or elated by the prosperous event of their great enterprises, sought and quarried in the veins of mountains, even amongst the most remote inhabitants of the earth, and having hewed the obelisks out of the rock, they erected and dedicated them to the gods in token of their piety; there are other obelisks lying broken on the ground. An obelisk is a hard stone in form of a land mark, rising to a great height, and becoming gradually more slender, so as to imitate an arrow or ray, gradually diminishing in thickness, brought to a narrow point at the top, and square in the transverse section, and polished by the hand of the artist. The innumerable representations of visible objects, called hieroglyphics, which we see sculptured on all the sides, were dictated by the ancient authority of primitive wisdom. These figures of birds and beasts, and of imaginary animals not of this world, were intended to convey to posterity the memory of the kings. For it was not then as it is now, that a certain limited number of letters easily expresses whatever the human mind can conceive; but amongst the ancient Egyptians, each word was represented by a letter, and one letter sometimes represented a sentence. For example, a vulture stands for the word nature, because naturalists assert that no males are found amongst these birds, (the vultures generating their offspring as nature produces the

universe;) and by the figure of a bee, armed with its sting, and making honey, they represent a king who should be armed with innate force as with a sting, and should, with clemency, dispense benefits to his people like honey. Flatterers told Constantius, that although Octavianus Augustus had removed two obelisks from Heliopolis in Egypt, and placed one of them in the Circus Maximus, the other in the Campus Martius, yet he was deterred by the great size of this one, and did not attempt to remove it. The truth, however, ought to be known to the world, that Augustus, having removed some obelisks, left this untouched, because it was fixed in a magnificent temple, and dedicated to the sun, and was eminent above all the others. But Constantine justly thought, that there was no impiety in removing a miracle of art from a temple, if he placed and consecrated it in Rome, the temple of the whole world. The obelisk lay till machines were prepared for transporting it. It was floated down the Nile. It was landed at Alexandria. A ship of an unusually large size was built, to be impelled by three hundred rowers. In the mean time Constantine died, and the work went slowly on. The obelisk was shipped. It is conveyed over the sea and up the Tiber, and old Tiber seemed afraid lest some accident might happen in conveying this gift of the Nile to the walls of his favourite city. It is landed at the village of Alexander, three miles from the city; from whence, placed on rollers, (cuniculis impositum, in other editions chamulcis,) and drawn slowly, it is conveyed through the Porta Ostiensis, and the Piscina Publica, to the Circus Maximus. It remained to place it erect, and this was almost despaired of. Lofty beams being erected for the attempt, so that there appeared a forest of machines; strong ropes of a great length are attached, which formed a net work that darkened and

LIST OF THE ENGRAVINGS.

The following enumeration of these cupolas is in the order of the times at which they were built.

a. The seventh figure of the set is the Pantheon, built in the reign of Augustus.

b. The tenth figure is the peristyle temple at Tivoli.

c. The ninth figure is the Baptisterium, or round church of Santa Constanza, built in the reign of Constantine.

d. The sixth figure represents Santa Sophia, built in the sixth century, when the graphic arts of the ancient Greeks and Romans had fallen into decline. Both this and the Pantheon are oblate spherical cupolas.

e. The eighth figure is the church of Saint Mark's at Venice, built in the eleventh century, with small dark cupolas.

f. The second figure, the cathedral of Santa Maria del Fiore, is the oldest of the elongated ellipsoidal large cupolas built at the period of the revival of the arts in Europe. It is of masonry.

g. The eleventh and last figure is the small temple, built by Bramante at the revival of architecture, in imitation of the ancient round peristyle temple at Rome and at Tivoli.

h. The first figure is the basilica of Saint Peter's at Rome. Michael Angelo, in the structure of this cupola, had in view the cupola of Santa Maria del Fiore, represented in figure second. It is of masonry.

i. The third figure is Saint Paul's at London. The exterior part of the cupola is of timber. The lantern is of masonry supported by the brick cone within the cupola.

k. The fourth figure represents the church of the hospital of military invalids at Paris. The exterior part of the cupola and the lantern are of timber. Its structure bears some resemblance to that of Saint Paul's represented in figure third.

l. The fifth figure is the church of Saint Genevieve at Paris. The cupola is of masonry. It was in danger of falling, and walls were added within the church to support the cupola. These walls, now in 1819, are

taken away. ' The insufficiency was said to arise partly from the neglect of the masons who built the piers, with stones not formed into parallelopipeds as they ought to have been, but only squared exteriorly and hollow in the middle of their beds.

The Strozzi palace represented in the third figure of

this plate is of the end of the fifteenth century. The Palazzo de' Rucellai in the via della Vigna Nova at Florence is in a similar style, and was designed by Leon Battista Alberti in 1477.

IN VOL. II.

The figures in Plates IX., XIII., XVII., XIX., XX., XXII., and XXX., are drawn on one scale, and shew the relative magnitude of the buildings.

1

Errors.			Corrections.
Page	line		
8	2	from the foot, Lyminton	Lymington
17		cratægus rubra	cratægus azarolus
59	10	Marino Greco	Marmo Greco
163	2	from the foot, Piazzo del Gran Duca	Piazza del Gran Duca
170	2	Accurtius	Accursius
201	11	from the foot, called Pietra di Garbo or Gabro	called Gabbro
230	5	called	was called
246	14	and 15, by Giovanni Bologna	by Bonanni of Pisa in 1180.
280	8	Erica Mediterranea	Erica arborea
311	11	Jan Lorenzo	San Lorenzo.
317	18	by Pius VI. to the Vatican museum	by Paul II., in 1467, as Platina relates in his account of that Pope, and is now in the Vatican museum where it was placed by Pius VI.
353	14	after for, insert	the two streams, one of which was brought from a
357	12	from the foot, $166\frac{12}{27}$ cubic yards	$156\frac{57}{100}$ cubic yards
	9	from the foot, 332	312 tons
	9	from the foot, the pyramid at top	the pyramid at top whose height is 5 feet
	8	from the foot, 336 tons	316 tons
360		capstanes	capstans
362	3,	blocks of granite	blocks of white limestone. See *Obelisk* in the alphabetical table.
364	last,	Bollari	Bottari
368	6	from the foot, Piazzo Navona	Piazza Navona
375	16	Loucoon	Laocoon
457	19	It will not grow to a tree in that part of Britain which is so far north as the 56th	In that part of Britain which is so far north as the parallel of 56 degrees of latitude, it scarcely attains to the

Page	line	*Errors.*	*Corrections.*
		degree, the summer's growth being frequently killed by the cold of the following winter, and almost all those in the south of England were killed some years ago in one season.	size of a foot in diameter in the trunk. About the year 1809 almost all the trees of the American platanus, the Platanus occidentalis, were killed in the south of England in one season, not by the cold of the winter, but by some other quality of the atmosphere.
501	(n.)	see page 276	see page 477
520	10 from the foot,	in lees of wine	in a watery solution of burnt lees of wine
553	6 from the foot,	Acqua Virgo	Acqua Vergine

VOL. II.

Page	line	*Errors.*	*Corrections.*
25	last,	Italicorum	Italicarum
74	5 from the foot,	1386	1387
207	7 from the foot,	Soane	Saone
213	7	Soane	Saone
	12	Soane	Saone
257	5	Siblila	Sibilla
279	4 from the foot,	Bex in the Canton of Bern	Bex near Saint Maurice on the Upper Rhone
282	9	Slivoritz	Slivovitz
287	11 from the foot,	Fracastoro Maffei	Fracastoro, Maffei
292	20	Chamaerop's	Chamaerops
297	4 from the foot,	Rome	efface the word Rome
298	9	Sybils	Sibyls
299	8 from the foot,	Pietro da Cartona	Pietro da Cortona
307	10	Dori Pamfili	Doria Pamfili
351	10	*Janus Quadrifons*	*Janus Quadrifrons*

THE END.

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